VOL. 60, NO. 50

BALTIMORE, MD.
JULY 18, 1938

THE CANNING TRADE

THE Journal OF THE Canning AND Allied Industries

ESTABLISHED 1878

SINCE 1878—THE CANNED FOODS AUTHORITY

WEEKLY NEWS OF THE INDUSTRY — MARKETS — QUOTATIONS

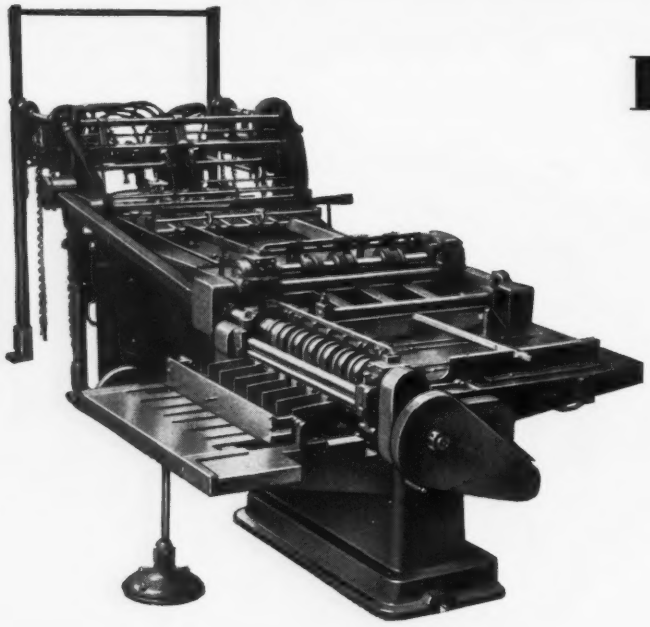
A PARADE OF 55 MEDICAL PUBLICATIONS EVERY MONTH

● The readers of these important publications include doctors, nurses, dentists, dieticians—more than 600,000 of them. American Can Company advertisements reach them every month, telling the story of food in cans, building confidence and gaining greater acceptance for canned foods. Thus, Canco helps the entire canning industry by talking canned-food-facts to a group of people influential in guiding the eating habits of the nation.

CANCO

AMERICAN CAN COMPANY

230 Park Avenue · New York, N. Y.



HEADLINER
OF THE
CAMERON
1938
CAN-MAKING
LINE

The Cameron Duplex Trimmer and Slitter interlocked with the Dexter continuous plate-feeding device, sets a new high in body-blank production.

It heads the Cameron High-Speed Can Making Line. The subsequent operations of can-manufacture are also performed by smooth-running, dependable, automatic machines.

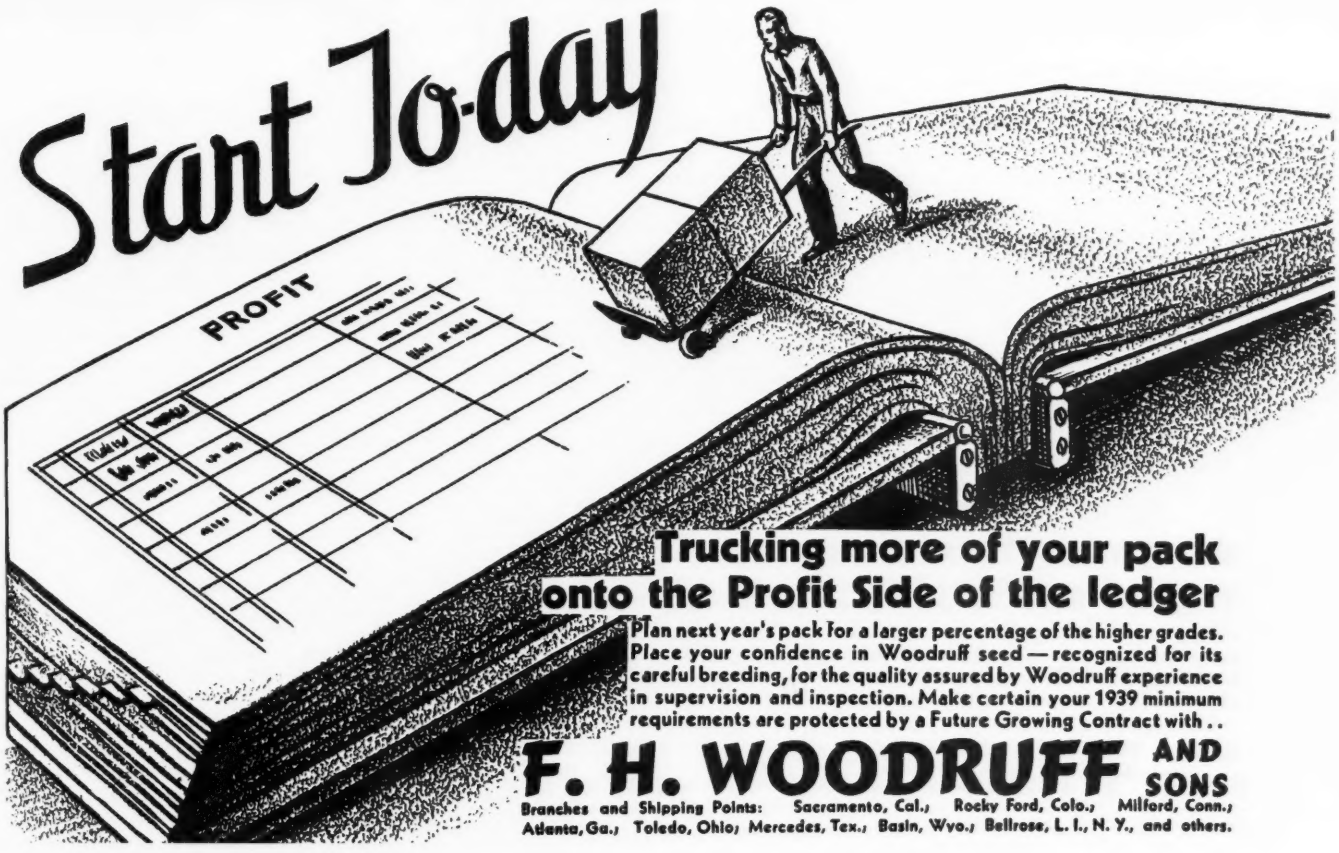
Every Machine for Can-Makers!

Cameron

CAN MACHINERY CO.

240 NORTH ASHLAND AVENUE
CHICAGO ILLINOIS

THE CANNING TRADE is published every Monday by THE CANNING TRADE, 20 S. Gay St., Baltimore Md. Arthur I. Judge, Manager and Editor. Arthur J. Judge, Advertising. Yearly Subscription price: U. S. A.—$3.00; Canada—$4.00; Foreign—$5.00. Advertising rates upon application. Forms close Wednesday, cover forms Tuesday. Copy required for proof ten days in advance of close. Entered as Second Class matter at the Post Office. Baltimore, Md., under Act of March 3rd, 1879.



Trucking more of your pack onto the Profit Side of the ledger

Plan next year's pack for a larger percentage of the higher grades. Place your confidence in Woodruff seed — recognized for its careful breeding, for the quality assured by Woodruff experience in supervision and inspection. Make certain your 1939 minimum requirements are protected by a Future Growing Contract with . .

F. H. WOODRUFF AND SONS

Branches and Shipping Points: Sacramento, Cal., Rocky Ford, Colo., Milford, Conn., Atlanta, Ga., Toledo, Ohio, Mercedes, Tex., Basin, Wyo., Bellrose, L. I., N. Y., and others.

Hamachek Pea Hulling Equipment

OUR entire organization specializes in the manufacture and service of Green Pea and Lima Bean Hulling Machinery. We do not make any machinery for inside of a canning plant to divide our efforts.

Our line of Pea Hulling Machinery is complete and includes Viners, Viner Feeders, Viner Power Units, Ensilage Distributors, Steel Viner Sheds and Galvanized Field Boxes for shelled peas.

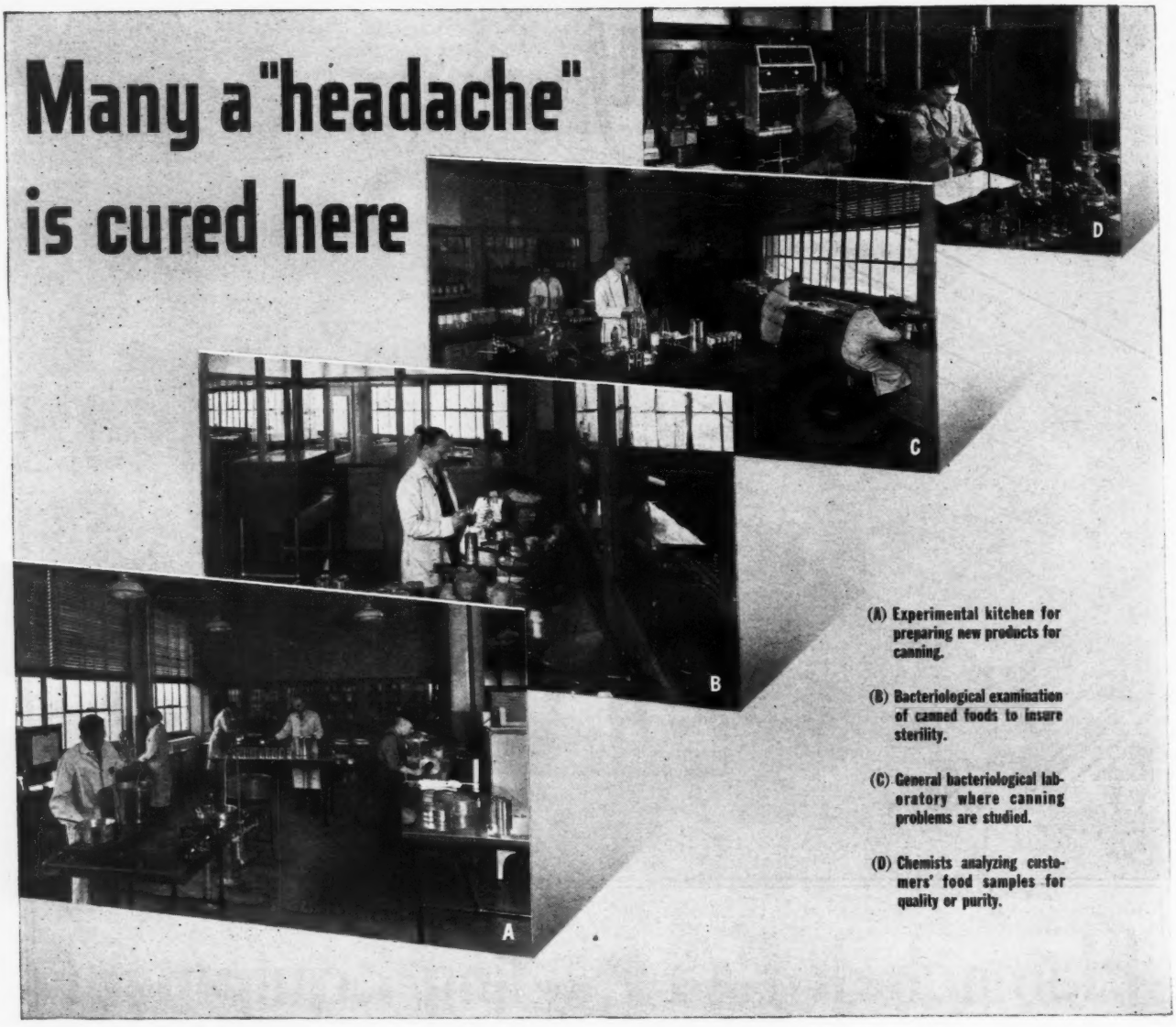
May we help you improve your pea or lima bean pack—and your profits?

FRANK HAMACHEK MACHINE CO.

Manufacturers of Viners, Viner Feeders, Ensilage Distributors and Chain Adjusters

KEWAUNEE, WISCONSIN

Many a "headache" is cured here



(A) Experimental kitchen for preparing new products for canning.

(B) Bacteriological examination of canned foods to insure sterility.

(C) General bacteriological laboratory where canning problems are studied.

(D) Chemists analyzing customers' food samples for quality or purity.

Buried in the archives of Continental's big main Research Laboratories are the scientific records of many a hard won victory over nature. Each one marks the happy solution of a perplexing problem. Together they spell Canning Progress.

For many years Continental has been waging a relentless campaign not only to cure the "headaches" of the individual canner, but to lighten the burden of the industry as a whole. Naturally, Continental has not been alone in its activities, but by its progressive action others have renewed their interest in this vital work.

Today, Continental's Research Laboratory is one of the finest in the country. It is equipped with all the latest scientific aids known to man. It is staffed with a group of experts who have acquired their experience and knowledge within the industry itself. Last, but not least, its functions are devoted, unreservedly, to your welfare.

If you are interested in a more progressive type of cooperation and service, it will pay you to see what Continental has to offer. Speak to a Continental representative.

CONTINENTAL CAN COMPANY

NEW YORK • CHICAGO • SAN FRANCISCO • MONTREAL • TORONTO • HAVANA

THE CANNING TRADE

Established 1878

The BUSINESS and MARKET JOURNAL of the CANNED FOODS INDUSTRY

EDITORIALS

SOMETHING "SCREWY" — Anyone who reads widely and tries to keep abreast of the times must have found himself pausing, and staring into space in bewilderment, at the amount of vacuous advice going the rounds: "get busy and start the wheels of industry going, and the depression will fade out." Might as well tell a starving man to imagine the finest banquet ever spread, and then to start eating it, and forget his hunger. Will Rogers used to say: "All I know is what I read in the papers," and not one in a million guessed what he meant. The wag answered: "Then you don't know nauthing." Try it out on any subject you choose, and see if they ever tell you anything constructive. Criticism? Yes, reams of it, but did you ever find a constructive suggestion—a way to cure the trouble?

And we are beginning to believe that the secret of the "Buying combine" is based upon this habit of the public never to think-through any subject. We might have said "sellers" instead of the "public"; and so they get their propaganda working 100 per cent on the sellers. And they take the goods away at their own prices!

They are still playing "over-production", in canned foods and kindred lines. One of the industry's bright young men, generally engaged in selling supplies, but likewise interested in tomato products, told us this week that one of the well known buyers for the A. & P. was apparently in dispair, throwing his hands into the air with the exclamation: "Thirty million cases of peas to distribute!" Asked how he made that, our visitor replied, this year's pack together with the carry-over of five million cases. And, of course, Wisconsin and its good pea pack came into the picture. We analyzed that together, showing that Wisconsin used to pack 10 millions annually without effort, and that the market did not have convulsions from it. Then it dropped down to about six million, where it is today, but the Northwest took up the slack with a production of nearly four million. And we seemed to be back where we started; but the northwest will not pack that much this year, and other pea regions are far short of last year, and the carry-over is about three million, not five. So instead of thirty we may have just about last year's pack, twenty-three million, all told. With the high quality of this year's pea pack that will not be enough to supply demand, even if business gets no better than it is. Pea canners, therefore, have a job of killing this propaganda.

Another. There came to our desk a special article written by the President of a food product, kindred to canned foods, let us call it pickles. He began with the assertion that the carry-over of pickles was—awful. Then he started to reason how to get his industry (and he really meant the market) out of its dumps, and one of the means was to induce the growers to reduce their acreage! As a pickle packer the job is for the pickle packers to reduce their output—it is their job not that of the growers—if they are such "defeatists" as to believe that the way to cure their business is to reduce it.

You know when you think that more than 25 per cent of our population is on relief or unemployed, and another larger percentage forced to live on meager rations, and actually going hungry, there must be something "screwy", something "rotten" with our industrial set-up. There certainly cannot be an over-production when millions are hungry and want the food or the goods.

All during the past year the buyers have been using this over-production club on all sellers, and they have succeeded in beating down your prices to or below costs. And not much wonder when producers, like the pickle man, start out by saying the supply is overwhelming! We know this is a thread-bare subject, and that like the weather everybody talks about it but no one does anything. It's up to you producers, the sellers, to do something; but if you continue to sit still and wait for the buyers to take the goods away from you, as you do, you need not be surprised that they take the profits, too. Our pickle man, as we have named him, says that his industry should adopt co-operative, industry advertising, making the consumers realize that pickles are a good food product, needed in the daily diet, etc., etc. And so it should, but that is a long deferred beneficial plan, and in this emergency something that will produce quicker results is needed. Well, what?

True, the greatest free-hand lying to be found anywhere is in "costs", especially when we boast of our wonderful automatic machinery and its efficient output; and secondly, too often the profit demanded is all out of reason, if the food be a staple. That's bitter, but true.

A few years ago, a far-sighted pickle man (it so happens) was over-burdened with medium and large-size salt pickles for which there seemed to be no market. So he decided to cut them up cross-wise, in even

slices, and to pack them in a sauce of mustard and spices, and offered them as Bread and Butter pickles, in bottles that were plain and in which the contents could be easily seen, carefully avoiding the exotic, fansiful shaped containers that not only fool the purchasers as to the amount of contents, but actually scare them away. He offered a big bottle at a moderate price. And the result was that his style of pickles soon out-sold all others. There is an example that happens to be pertinent. But don't overlook the one, all important spice or ingredient which he mixed with his venture—he put salesmanship behind them, and got them "rolling". And he has had plenty of imitators since.

Let's return to that cost and profit hint made above. There is a great hullabaloo made about being forced to sell canned foods below cost, but when it came to contracting acreages for 1938 they seemed to have the money or to know where to get it, for totals were very little off regular. And when canning time arrived the packs were not noticeably cut because of lack of capital, which we have always thought was based on profits. In the very midst of this so-called industry depression, we note that the Tri-Staters put on a Golf Match this week, and that the Kraut men are doing the same thing, and taking the industry as a whole one would go far and not find a better dressed, and more freely spending crowd of men than our industry. And we are proud of them for it. But let's not fool ourselves, for that would be being the biggest fool of them all.

One of the things which is causing the bitterest feelings and keenest resentment in the country is the investigation into costs, and consequent prices. If you set up a business with heavily inflated plant value, bond (mortgage) issue two to five times the value of the business, and stock issued on the same basis; have a long list of officers drawing down princely salaries (often when the company is defaulting on bonds and preferred stocks) and then ask the public to pay a price that will carry this over-load, not much wonder it hesitates, and in the case of the poor man, is unable to buy because of the height of the price. Clear thinking is beginning to filter in on this insane set-up. There are instances of this in our industry, but they are not as numerous as in other lines, and on which you and I are paying through the nose. Some of the great industries are even now revamping; they see the handwriting on the wall, and they are finally coming to see the utter futility and the uneconomic theory of small outputs at high profits. And instead they see the wisdom, and the continuing safety, of larger outputs on a smaller profit basis. Dollars are made out of pennies, and then fortunes may be made out of dollars.

You may retort that we have always contended that low prices denote poverty and high prices prosperity; and that is true, but not when those prices are based upon a cost which in itself yields a handsome profit.

The largest packs ever made in this country, if of acceptable quality, were never large enough if they had been offered on the basis of real cost, with profits to all handlers in line with staple foods—and we mean right down to the final consumer. There have been too many who have taken the goods from the canners, at low prices because of the heavy pack, and then failed to pass the advantage on to the housewife when she came to the store. The canners now have a protection in this, if they would but adopt the fair trade laws, and control, as they can, the ultimate sales price on their goods. But here is another thing for their ultimate great good, which the industry as a whole is rejecting. Such action is beyond comprehension. And these very men will ask what can be done to improve conditions?

●

THE BUSINESS TAX IN THE DISTRICT

GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF THE ASSESSOR
BUSINESS PRIVILEGE TAX

Instructions as to Liability of Non-Resident Concerns Doing Business in the District of Columbia Under the Provisions of Title VI—Tax on Privilege of Doing Business—District of Columbia Revenue Act of 1937, approved August 17, 1937

THE Act requires two things of all persons who engage in business in the District of Columbia: (a) A license to do business, the fee for which is $10.00, which amount must accompany application for license; and (b) The filing of a return covering the gross receipts for the calendar year of *1936* and payment of the tax computed thereon. If the person involved was not engaged in business for the whole of 1936 then the return must be filed in accordance with Section 5 of Title VI. Title VI is reprinted under Appendix "A" in the booklet of regulations.

"Business," as defined in paragraph (d), Section 1, Title VI, includes the carrying on or exercising for gain or economic benefit, any trade, business, profession, vocation, or *commercial activity* in the District of Columbia. It is, of course, not necessary to maintain an office in the District of Columbia in order to engage in a commercial activity here. Any person who solicits and obtains business in the District of Columbia through an employee, agent, or other representative, or who delivers goods within the District of Columbia either in his own delivery equipment or in any manner whereby he retains title to the goods until such delivery, is engaged in a commercial activity and must report the gross receipts derived from such business and pay a tax computed thereon. A license is required for such business.

The Corporation Counsel for the District of Columbia has ruled repeatedly, with respect to non-resident firms, that the *solicitation* of orders in the District of Columbia by an employee, agent, or other representative, amounts to a commercial activity and the gross receipts derived from such business must be reported under Title VI of the District of Columbia Revenue Act of 1937 and the tax computed thereon, of course, with the exemption of $2,000; and if such business is continued after October 16, 1937, a license must be obtained to do such business.

Further, it has been ruled that unsolicited orders by mail, telephone or telegraph, which are not C. O. D. transactions, and where delivery is made by an independent agent of transportation, do not amount to commercial activity in the District of Columbia. If the merchandise is delivered in the delivery equipment of the out-of-town merchant, or if it is a C. O. D. transaction, such sale does amount to a commercial activity and the gross receipts therefrom must be reported and the tax computed thereon, and a license must be obtained to carry on such business.

The mere submission of a bid, either by mail or manually by an agent of an out-of-town firm to a government department (Federal or District) is not doing business in the District of Columbia. Of course, if the merchandise is delivered in the District of Columbia in the delivery equipment of the non-resident firm, or in any manner whereby title is retained to the goods until such delivery into the District of Columbia, such transactions amount to a ocmmercial activity in the District of Columbia and there is no distinction made between government and private business.

PRESERVATION PROCESSES

Continuing—Utilization of Fruit in Commercial Production of Fruit Juices[1]

by **M. A. JOSLYN**[2] **and G. L. MARSH**[3]

University of California, College of Agriculture, Agricultural Experiment Station, Berkeley, California

CIRCULAR 344,

Republished by permission of the University of California

FRESH FRUIT JUICES may spoil in many ways. They may spoil through fermentation, molding, or souring caused by the growth of yeasts, molds, and acid-tolerant bacteria capable of growing in the fruit juice. They may spoil through the activity of enzymes secreted by the fruit tissues which may bring about changes in color and flavor or cause formation of unsightly precipitates. Or they may spoil by the chemical reaction between certain of the constituents of the juice or between the juice constituents and oxygen of the air or the metal walls of the container.

The yeasts and most of the acid-tolerant bacteria are readily destroyed by heating the juice to about 150° F. for several minutes; some bacteria, particularly certain spore-forming bacteria that may be found in tomato juice, are more heat-resistant and require heating to 190° F. for several minutes. The mold spores are more heat-resistant than the yeasts and are destroyed at higher temperatures at about 175° F. for 5 or 10 minutes. However, they need air for their growth, and juice sealed in completely filled containers, under vacuum or after charging with carbon dioxide need not be heated to temperatures high enough to destroy mold spores. Some of the enzymes are readily destroyed by heating to moderate temperatures, or, like the mold, need air for their activity. The pectic enzymes, however, which cause the undesirable clearing of citrus juices and the clotting of the fruit particles they contain, or the jellying of unfiltered apple juice, are more heat-resistant, requiring at least 4 minutes at 185° F., 1 minute at 190° F., or a fraction of a minutes at 195° F. Since enzymes of this type are also involved in some of the changes in flavor that occur in citrus juices and some of the other juices, their destruction results not only in a better-appearing juice but also in a better preservation of flavor.

In addition to heat, other agencies have been suggested for the destruction of the microörganisms capable of spoiling the juice, for example, the use of electric energy in the form of ultraviolet rays, X rays, ultrasonic waves, or by direct electrolysis; or by the use of the strongly bactericidal powers of silver in very small concentrations. None of these methods have proved to be dependable under the existing commercial conditions.

The activity of microörganisms may also be prevented by making the conditions unfavorable to their growth, as by low-temperature storage of the juice or by the addition of the permitted chemical preservatives, benzoic acid and benzoates or sulfurous acid and its salts. Close filtration of the juice may be used to sterilize the juice and is satisfactory only provided the juice is not reinfected during bottling or canning.

Pasteurization.—Heating the juice to a temperature and for a time sufficient to destroy those microörganisms capable of growing in the juice is the most important method of preserving the juice. Pasteurization, however, must be carried out under conditions that will not impair the flavor of the fruit juice. Too high a pasteurizing temperature or too long a period of heating impairs the fresh-fruit flavor and imparts a cooked taste. To overcome this objection two processes of pasteurization have been developed: low-temperature heating for relatively long periods, or heating for a very short period, about 1 minute, at high temperatures.

The higher the temperature of heating, of course, the shorter the time of heating necessary to destroy the microörganisms or enzymes. Thus, for wine yeast in apple juice, Cruess, Aref, and Irish[12] found the following periods of heating at the various temperatures:

Minutes	°F	Minutes	°F	Minutes	°F
2	145.0	20	132.6	60	129.5
10	134.6	40	130.6	120	127.9

They found that temperatures of 150° to 160° F. were sufficient to preserve fruit juices if (*a*) oxygen is displaced by carbon dioxide, or (*b*) if the oxygen is removed by vacuumization and the juice sealed under high vacuum, or (*c*) if the oxygen is removed by vacuumizing or washing with nitrogen and displaced by nitrogen, or (*d*) if the juice is packed in tin containers without the precaution of removing oxygen by vaccumizing or by displacing it with an inert gas such as carbon dioxide, nitrogen, helium, etc. They were successful in preserving bottled carbonated apple juice by pasteurizing at 140° F. for 30 minutes or at 130° F. for 2 hours even though it was heavily contaminated with yeast and mold spores. The uncarbonated bottled juice pasteurized under the same conditions became moldy. When the juice was canned and heated in cans for 30 minutes at 140° F. no spoilage occurred even in uncarbonated juice. The juice pasteurized at 140° F. or less was of fresh flavor. However, although this temperature was high enough to destroy yeasts, it was not high enough to destroy pectic enzymes. One lot of juice from ripe apples was observed to become jellified in cans in storage for several weeks. Although low-temperature pasteurization may be used for apple juice low in pectin content, either naturally or made so by enzyme treatment, and for certain other acid fruit juices, it is not suitable for citrus juices because of the high heat resistance of its pectic enzymes, and it is unsafe for tomato juice because of the danger of spoiling by heat-resistant bacteria.

In the flash-pasteurization process the juice is heated rapidly to temperatures of 190° F., held there for about a minute, cooled to a suitable filling temperature, filled into suitable containers which are then closed, inverted to sterilize the seal, and promptly cooled. To avoid overheating, the juice must be brought rapidly to temperature and then promptly cooled so that it is exposed to high temperatures for but a short interval. This process in conjunction with deaeration is finding favor not only in the citrus-fruit-juice industry for which it was chiefly developed, but also for use with other fruit juices. The filling temperature depends on the container to be used, whether tin or glass, type of seal, and type of juice. Orange juice is generally filled into cans at 175° F.

Heat Transfer Determinants.—In the pasteurization of fruit juices after bottling or canning, sufficient heat must be transmitted through the wall of the container to raise the temperature of the entire contents to the pasteurizing point. When the container is placed in the pasteurizer, heat enters from all sides, and the surface of the contents rapidly reaches the pasteurizing temperature. The rate of heat transfer from the bath to the container depends on the temperature gradient between them, on the nature of the heating medium (it being faster for water than for steam), and on the velocity of flow of the heating

---

[1] This circular supersedes Circular 313, "Fruit Juices and Fruit Juice Beverages," by John H. Irish.

[2] Assistant Professor of Fruit Technology and Assistant Chemist in the Experiment Station.

[3] Associate in the Experiment Station.

[12] Cruess, W. V., H. Aref, and J. H. Irish. Pasteurization investigations. Fruit Prod. Jour. 12:358-59, 1933.

medium over the surface of the container. Heat transfer through the walls of the container to the surface of the liquid in it depends chiefly on the conductivity and thickness of the walls and is relatively fast. The air in the headspace usually allowed in bottles acts as an insulator and it is good practice to lay the bottles on their sides in order to assure the sterilization of the inside of the cap. Cans are exhausted before closing and are filled more completely so that there is less danger of incomplete sterilization of the inside surface.

The rate of heat penetration from the surface of the container through the mass of liquid is determined largely by the nature of convection currents. If the viscosity of the fluid is such as to impede convection currrents the rate of heat penetration into the interior is slow. Where the viscosity is low enough to freely permit convection currents, the temperature in the center will rapidly reach the pasteurizing point, although the time required will depend also upon the size and shape of the containers.

The most practical method of increasing the rate of heat transfer is by agitation of the container. This not only insures a more uniform heating of the juice, but also reduces the period of heating and thus lessens the production of "cooked" flavor in the juice. Continuous agitating pasteurizers, particularly for cans, are now available which so increase the rate of heat penertation into the container as to markedly reduce the necessary time of heating. These pasteurizers are constructed either so that the can rolls or so that the can is actually agitated in a jarring manner.

Freezing.—Freezing is an ideal way of preserving fruit juices, particularly those very susceptible to injury in flavor by heating, since the frozen juice retains practically all its fresh flavor and color when suitably prepared and frozen. However, because the juice has to be defrosted before use as such and because of the marketing difficulties encountered, freezing is used largely for the purpose of extending the operating season of canneries and preserving plants. In order to retain its fresh flavor the juice should be chilled and frozen as soon after extraction as possible. Citrus juices and certain other juices should be deaerated before freezing to retain their flavor better. The juice may be chilled almost to its freezing point by passage through brine-cooled coils, packed cold into hermetically sealed containers, and frozen as rapidly as possible either in air or brine at 0° F. or below. In the frozen form it may be stored indefinitely at 0° to 10° F. The juice may be deaerated, frozen to the consistency of an orange ice in specially constructed vertical ice-cream freezers, and then packaged and frozen. If the juice is deaerated, the vacuum should be relieved with pure nitrogen gas before freezing. The juice may be frozen in small-sized tin cans or paper containers for institution use, or in larger-sized enamel cans fitted with slipover or friction tops. Allowance should be made for expansion on freezing; about 10 per cent headspace in the container being necessary. The dehydrating and concentrating effect that occurs from the mechanical effect of the separation of water as ice, together with the low temperature, results in the destruction of a large percentage of the microörganisms present. Not all the microörganisms are destroyed however. The frozen juice is, therefore, perishable and will spoil by molding or fermentation if allowed to defrost and reach room temperature. For this reason it must be kept under refrigeration until ready for use.

Chemical Preservatives.—Sodium benzoate and sulfurous acid or its salts are the only preservatives permitted by law. The indiscriminate use of chemical preservatives in the past to mask impairment in quality has resulted in a marked prejudice against them. However, they are still widely used in the beverage industry. Sodium benzoate of high quality, when used in concentrations of 0.05 to 0.1 per cent, does not impart a highly objectionable flavor to fruit juices or to a fruit juice-beverage base, particularly if they are to be diluted before use. Sulfurous acid, whether added as such or as potassium metabisulfite does have an objectionable flavor in concentrations of 0.1 per cent or above. However, it strongly retards oxidation and the resulting discoloration and loss of flavor, and when used in small amounts in conjunction with sodium benzoate is very desirable. The amount of preservative necessary depends on the extent and type of infection and the character of the juice, particularly its acidity. Thus, Cruess, Richert, and Irish[13] found that in acid juices, such as citrus juices, 0.1 per cent of sodium benzoate was sufficient, but in less acid juices, such as those from very ripe apples or grapes, at least 0.3 per cent was necessary. The concentration of metabisulfite or sulfite as SO_2 necessary to prevent growth in an acid juice is about 0.1 per cent. When used to inhibit oxidation about 0.02 per cent of SO_2 is sufficient for ordinary conditions where the juice is stored in sealed containers. The preservative should be completely dissolved and thoroughly mixed with all the juice to be treated.

Sodium benzoate varies greatly in quality. Some grades possess a medicinal "iodoform" taste and odor that renders them wholly unfit for use in fruit products.

One-tenth of 1 per cent corresponds to about 7 ounces of sodium benzoate to 50 gallons of fruit juice, or to about 8 ounces to 50 gallons of 50° Balling sirup. The benzoate should be weighed and then dissolved in water before adding to the fruit juice. A solution containing 1 pound of sodium benzoate dissolved in water and diluted with water to 1 gallon makes a solution of convenient strength. One pint of this solution contains 2 ounces of sodium benzoate. After addition to the juice or sirup the liquid must be thoroughly stirred to insure mixing.

Carbonated bottled fruit beverages keep satisfactorily with 0.05 per cent of sodium benzoate, that is, 5/100 of 1 per cent. The amount of benzoate necessary to give this concentration in the bottled beverage is added to the sirup. Thus, if 2 ounces of sirup is used to a 6-ounce bottle, then the sirup must contain 0.15, or 15/100 of 1 per cent of sodium benzoate. *The presence of sodium benzoate or other chemical preservatives must be declared in prominent type on the label.*

Sterilization by Filtration.—Several germ-proof filters are now available for the sterilzation of fruit juices. These filter out the microörganisms which the juices contain. By properly operating asbestos pad filters, porous candle filters, or other suitable sterilizing filters, it is possible to remove all miscroörganisms. Juice that is to be sterilized by filtration should be previously clarified and roughly filtered, otherwise the filter pores become quickly clogged with suspended colloidal material.

Not all fruit juices may be sterilized by this means, since many of them depend on suspended matter for color and flavor. In others close filtration usually results in loss in body and a thin-tasting juice. Furthermore, there is danger of contamination during filling into containers or from the containers or the seals. Sterilization filtration has been tested experimentally in this country for apple and grape juices and is used commercially to a limited extent. In one process, grape juice after filtration through a germ-proof filter is stored in sterile tanks under an atmosphere of carbon dioxide gas until ready for bottling. Several installations of this type have been made, particularly in South Africa. This process is worthy of further testing.

Preservation by Other Methods.—The possibility of sterilizing fruit juices by electrical energy has attracted much attention and many patented processes for this purpose have rapidly come upon the market.[14] Usually these processes utilize electrical energy in the form of alternating or direct current, X rays, ultraviolet light, ultrasonic waves, or two or more of these combined. The use of electrical current for sterilization is not new. Wine was treated as early as 1868, and processes for treating milk were described in 1909. The most favorable results in milk sterilization have been obtained by alternating current. However, the action of alternating current is not due to some mysterious power of electrical energy, but to the heat produced by the resistance of the cells and the medium to the passage of electrical current. The apparent advantage of alternating current lies in the absence of localized overheating. Direct current cannot be used because of the marked changes

[13] Cruess, W. V., P. H. Richert, and J. H. Irish. The effect of hydrogen-ion concentration on the toxicity of several preservatives to microörganisms. Hilgardia 6 (10) :295-314. 1931.

[14] Tracy, R. L. Sterilization of fruit juices by electricity. Fruit Prod. Jour. 10:269-71. 1931.

in flavor and color of the fruit juice as a result of electrolytic changes.

Light of very short wave length has been known to possess strongly bactericidal as well as chemical activity. However, complete sterilization is difficult to obtain by its use unless the juice is exposed in layers thin enough to allow complete penetration. The ultraviolet rays and X rays are readily absorbed by the juice when irradiated in too thick a layer, and therefore do not destroy organisms protected by thick layers or opaque particles. Furthermore, such irradiation produces ozone and ozonides even in the absence of air and gives to the juice an unpleasant "burnt-feather" odor. It also results in loss of vitamin C.

Sound waves of high frequency, ultrasonic waves, also have the ability to destroy microörganisms and certain enzymes, but destruction by their use is rarely complete and relatively inefficient.

Of the many other proprietary processes for sterilizing fruit juices, the most promising is a process which makes use of the oligodynamic properties of silver. In this process the juice is either filtered through a silver-bearing sand or is electrolyzed by silver electrodes at a very low current strength. In this way the juice picks up a sufficient concentration of silver ions, about 2 p.p.m., to render it sterile and immune to the attack of microörganisms. Although this process has been used commercially, particularly in Germany, for the sterilization of vinegar and drinking water it is not in commercial use in the fruit-juice industry of the United States. Furthermore, the contamination of the juice with silver may constitute a public health hazard.[15]

BOTTLING OR CANNING

At one time glass bottles were the usual final containers for juices. Cans were not found suitable at first because of the undesirable effect of tin on the color and flavor of the juice and because of heavy losses from hydrogen swells and pinholing. However, as more resistant tin plates have been developed and special linings devised to protect the juice against the bleaching action of tin, more of the juices have been packed in cans. Much of the juice today is packed and sold in specially enameled type L plate cans.

Cans have certain advantages: They offer better protection against discoloration by oxidation since the tin plate rapidly fixes all oxygen. Also they give better protection against deterioration by light. They are unbreakable and are lighter than glass containers. Being opaque the cans are satisfactory containers for cloudy juices. Great improvements, however, have been made in bottles. They are now available at lower costs in various degrees of opacity and are made of sturdier glass more resistant to thermal shocks and with better closures designed particularly for juices.

Cans are especially suitable for the packaging of the deaerated, flash-pasteurized juice. The juice is filled hot into the cans at about 175° F. They are sealed automatically, inverted to sterilize the lids, and then promptly cooled by rotating through a mechanically chilled water bath. Citrus enamel-lined cans are used for citrus juices and special berry enamel-lined cans for loganberry and red grape juice, or other colored juices. However, all the bleaching action of the tin plate is not prevented even in these cans, and colored juices should not be stored too long or at too high temperatures in the cans.

The light-colored juices may be packed in unlacquered cans under some conditions. The fresh-fruit flavor of the juice is often better preserved in an unlined tin can but there is danger that the juice will acquire a tinny flavor. A partially lined tin can may be best, one that combines the flavor-protective effect of tin without imparting its undesirable tinny flavor. Packing orange juice in citrus enamel-lined cans having plain tin lids may be desirable.

Bottles can be filled with hot juice, sealed, and cooled; but cooling cannot be accomplished as rapidly as in the can because of danger of breaking the bottle. The bottles should be previously steamed or otherwise tempered with hot water; then filled with the deaerated flash-pasteurized juice at 175° F; capped either with crown caps or with vapor vacuum seals; placed on their sides to sterilize the caps and then allowed to cool to room temperature. However, resistant glass bottles are available which may be cooled directly in cold water after filling with hot juice. If crown-capped bottles are used these should be filled full to minimize oxidation. The vapor vacuum seals (fig. 13) are applied under a vacuum created by a steam jet so that bottles to be capped with them should not be filled full of juice.

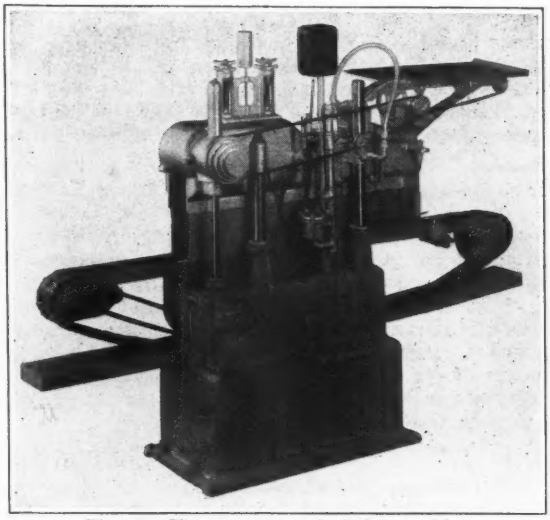


Fig. 13.—Vapor-vacuum-seal closing machine.

Much of the juice that is now bottled is preserved by "in-the-bottle" pasteurization. In this process the bottles are filled with juice at room temperature, allowance being made for expansion on heating. Quart bottles must be filled to within only about 1½ inches of the top, this space being necessary for expansion of the juice during pasteurizing. An automatic bottle-filling machine will hasten this work. The bottles must be thoroughly washed before use and should, if facilities permit, be sterilized in live steam a short time before filling, but must be cool at time of filling to avoid breaking.

If plain cork-lined crown caps are used they should be placed in live steam or boiling water for a period of about 1 minute just before use in order to destroy mold spores on and in the cork of the bottle cap. Nearly all spoiling of juice in bottles by mold growth is caused by the resistant-mold spores to be found on all such nonsterilized caps. The cork is a poor conductor of heat and thus protects the spores during sterilization of the juice; hence the need of sterilizing the corks or caps before use. Paper- or metal-foil-lined caps are preferable.

The bottled juice must be heated to a temperature and for a time sufficient to attain a sterilizing temperature at the coolest point, usually the center of the bottle. Agitation during heating will facilitate heat transfer. The bottles are placed in a horizontal position on the false bottom of the sterilizer in order that the juice shall be in contact with the cap and thus make certain that the inner cork disk of the cap reaches the pasteurizing temperature of the juice. If the bottle is in an upright position the air space in the top of the bottle acts as an insulator and prevents the cap from being thoroughly heated. The bottles are covered with water, and the water heated by steam or direct heat to between 176° and 178° F. and kept at this temperature 30 minutes for bottles of 1-quart size or less and for gallon size 45 minutes or more. There will be about 2° F. difference between the temperatures of the bottled juice and the surrounding water at equilibrium. Cooling after pasteurization may be hastened by slowly running cold water into the bath.

The water is then drawn from the pasteurizer and the bottles placed in a room free from violent drafts of cool air; or they may, if desired, be allowed to cool in the pasteurizer. The latter practice avoids the necessity of handling the hot bottles.

[15] Gibbard, James. Public health aspects of the treatment of water and beverages with silver. Amer. Jour. Pub. Health 27:112-19. 1937.

In canning the juice by the in-the-can process, the cans are filled with cold juice, closed under vacuum in an automatic-vacuum-closing machine, and processed in an agitating water bath for the required period of time, which depends on the kind of juice and size of container. Orange and grapefruit juices in No. 1 cans are heated for 10 minutes at 165° F., tomato juice for 20 minutes at 212° F., and other juices for about 20 minutes at 175° F. If a vacuum-closing machine is not used, the juice may be preheated to 165° F., filled hot into cans, sealed, and then processed; or the juice may be filled into cans which are then heated in hot water to 160° to 170° F., sealed hot, and processed. After processing, the juice should be promptly cooled.

To avoid bacterial spoilage in tomato juice Cameron[16] stresses the necessity of keeping contamination at a low level by the application of rigid plant sanitation. He suggests that the juice be heated to 190° F., and filled hot into cans, which should be processed in boiling water at 212° F. as follows:

Size of can	Time at 212°	Size of can	Time at 212°
No. 1	15 minutes	No. 2	25 minutes
303	20 minutes	No. 10	40 minutes

The canned and bottled fruit juices, even though they will not spoil by molding, souring, or fermentation when properly pasteurized are not unperishable and change in flavor on prolonged storage at room temperature. This is particularly true of citrus juices. For this reason they should not be stored at too high a temperature or for too long a time. Cool warehousing, and preferbaly cold storage, is desirable if the storage period is to be very long.

CANNED PULPY FRUIT-JUICE BEVERAGES

Pleasing fruit-juice beverages can be made from apricots, peaches, and certain other fruits by pulping the ripe, peeled, and pitted fruit and canning with sirup. In some cases dry sugar rather than sirup is added. These products are diluted with still or charged water before serving. The following process was described by Shallah and Cruess[17] and is now in commercial use.

Apricot Beverage.—The fresh apricots are picked when thoroughly ripe and after acquiring their deep characteristic orange color and flavor. Although the size is not important, the fruit should be clean and sound.

Whole apricots are washed thoroughly in cold water. They are pitted and steamed until cooked through. This heating kills the oxidase and facilitates the pulping. Ordinarily the heating need not exceed 5 minutes. The hot fruit is run through a brush finisher or tomato pulper equipped with screens of about 1-millimeter holes. It is possible to do the pulping and separate the pits and skins by a single operation, although this depends on the efficiency of the machine and on the degree of ripeness of the fruit.

The purée is sweetened with about an equal volume of cane-sugar sirup of about 15° Balling. The resulting diluted, sweetened purée is filled into plain tin cans, exhausted for 6 minutes at 212 degrees F., sealed, and cooked for 15 minutes at 212 degrees F. Large sizes should receive a longer processing period since the heat penetration through the purée is rather slow.

Another product can be prepared by sweetening the pulped fruit with dry sugar, canning, exhausting, and pasteurizing. It is used as a beverage by diluting it with an equal quantity of water. This gives a very pleasing and appetizing beverage, sweet enough to appeal to the taste of the average consumer.

Apricot beverages may be served at breakfast or other meals or used between meals. They have all the aroma of apricots and are probably rich in vitamins A, B, and C. Without dilution, the product can be used as flavoring for milk shakes and in the manufacture of ice cream.

Peach Beverage.—The procedure for making peach beverage is essentially like that described for apricot beverage. Either canning clingstone peaches or juicy varieties of freestone peaches may be used. The fruit should be somewhat riper than for canning as halved peaches.

The fruit is pitted; lye-peeled; heated in a pie-fruit cooker in steam until soft; passed through a tomato-juice extractor or tomato pulper; then if necessary through a tomato-products finisher. About an equal volue of about 15° Balling sirup is added. After this the product is canned, exhausted, sealed, processed in an agitating canned-fruit sterilizer for 15 to 20 minutes, and *very* thoroughly cooled.

CANNED ORANGE DAIRY BASE

The recognized value of orange juice in the diet, including its value as a supplement to milk in the feeding of children, has aroused the orange-beverage producer to the possibility of using the milkman as a distributor of orange juice. Several attempts to distribute freshly extracted orange juice and frozen orange juice have failed for several reasons. Perishability, high cost, and lack of sufficiently complete consumer acceptance of pure orange juice were the more important reasons.

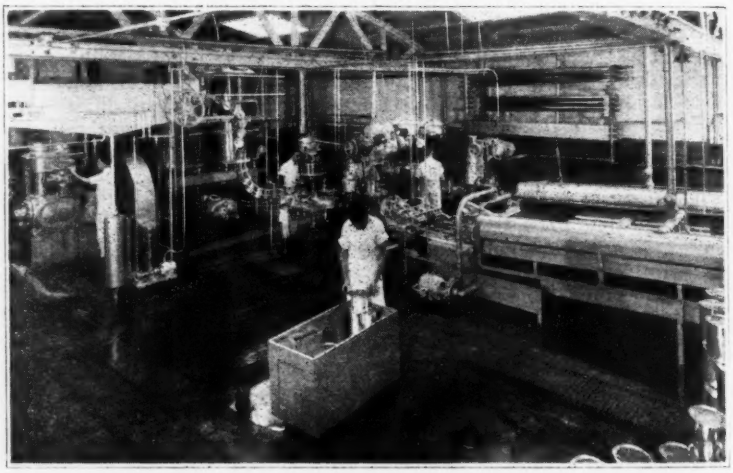


Fig. 14.—Canning dairy orange base. Note the flash pasteurizer at the right.

It was found that school children preferred sweetened orange juice to pure juice, and this preference brought about the distribution of an orangeade prepared from pure orange juice. For several years orangeade was distributed to the school children of Los Angeles and the near vicinity. Then came the idea of increasing the distribution of this orangeade to a national scope by making use of the dairies who were serving the schools and other institutions as well as the homes. A sweetened orange juice, fortified with lemon juice, orange oil, and certified food color was developed. This product was canned in gallon cans (fig. 14) and sold to licensed dairies who were furnished attractive glass bottles. The canned dairy base was converted into orangeade at the dairy by dilution with water and sweetening with sugar, bottled, and distributed by the milkmen. Care was taken to prepare the product so that each glass contained the equivalent of 1 ounce of pure orange juice.

The dairy bases are now made by adding sugar to strained orange juice to bring it to the required sweetness, about 50° Balling; citric acid or lemon juice to give it the required tartness on dilution; pectin to aid in retaining the pulp particles in suspension; and cold-pressed orange oil emulsified in water with pectin. The blended sirup, which may contain some orange juice concentrate, is deaerated, flash-pasteurized, and canned in citrus enamel-lined cans. To improve its appearance the pulp particles may be broken up by passing the juice through a colloid mill.

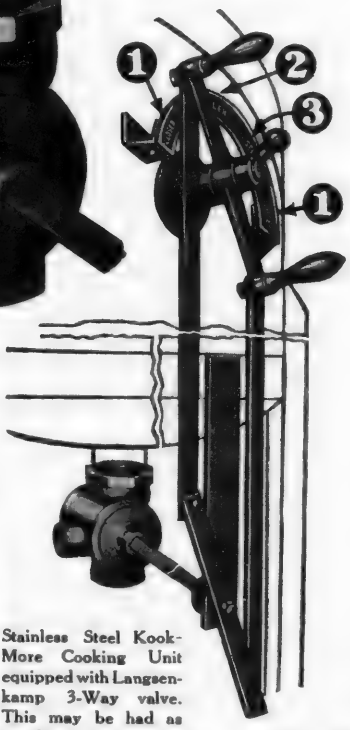
Formerly, artificial coloring matter was added to dairy bases but this practice is now prohibited by a ruling recently enacted and put into effect by the Food and Drug Administration.

(Retention of Vitamin C in Fruit Juices will be published next week)

[16] Cameron, E. J. Spoilage problems in canning tomato juice and pumpkin. Canner 80(11):7-8, 22. 1935.

[17] Shallah, A., and W. V. Cruess. Canning of apricot juice. Fruit Prod. Jour. 13:205. 1934.

Furnished complete for installation with operating lever, control rods and all attachments. Valve completely sanitary. Sizes 2", 2½", and 3".



Stainless Steel Kook-More Cooking Unit equipped with Langsenkamp 3-Way valve. This may be had as standard equipment on Langsenkamp Cooking Units. It can be installed on old equipment. Write for prices, giving number and size of tanks.

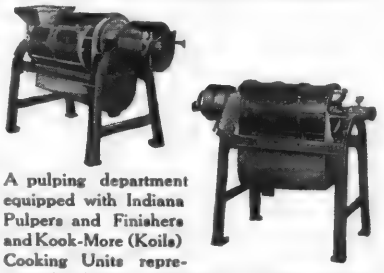
The New Langsenkamp **3-WAY VALVE**

SAVES PRODUCT, SAVES TIME, SAVES STEPS

Affording a Positive Method for Sealing and Opening Drain. Controlled from Operating Platform. Can be Installed on your Present Cooking Units.

● This is a two-port valve that operates in three positions: (1) Both ports closed sealing tank. (2) Port to finisher open, port to drain closed. (3) Port to drain open, port to finisher closed. A movement of the control lever located near the top of tank turns the key to position desired. If the tank is to be sealed, ready for filling, the control lever is moved to position marked "CLOSED." If contents of tank are to be drained, the control lever is moved to position on indicator marked "FILLER." After the tank has been emptied, the control lever is moved to position on indicator marked "SEWER" which opens port for washout.

The control is positive. It obviates errors. It permits complete operation from the operating platform. There are no plugs to pull—and none to be loosened by back pressure causing waste of product.



A pulping department equipped with Indiana Pulpers and Finishers and Kook-More (Koils) Cooking Units represents the ultimate in efficiency and dependability. Send for a new Langsenkamp catalog.

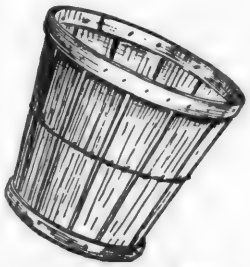
F. H. LANGSENKAMP CO., Indianapolis, Ind.

"Efficiency in the Canning Plant"

Eastern Shore Representative: A. K. ROBINS & CO., INC., Baltimore. *Western Representative:* JAMES Q. LEAVITT CO., Seattle, Wash. *Pacific Coast Representative:* KING ENGINEERING & SALES CO., San Francisco. *Texas Representative:* A. H. VAYO, Harlingen, Texas. CHISHOLM-RYDER CO., Niagara Falls, N. Y.

Quality

TOMATO FIELD HAMPERS



5/8 Machine Made Hamper

that have met the test of the canning industry. Strong and ruggedly constructed—will last longer. Five types at reasonable prices. Ask for samples.

RIVERSIDE MANUFACTURING CO., INC.

Murfreesboro, North Carolina

5/8 Hand Made Hamper

"Largest manufacturers of canners' 5/8 bushel field hampers in the world"

FOR CANNING FANCIEST WHOLE-KERNEL CORN AT LOWER COST

CORN CANNING *Tuc* EQUIPMENT

THE UNITED COMPANY *Westminster, Md.*

HUSKERS — CUTTERS — TRIMMERS — CLEANERS

SILKERS — WASHERS and GRINDERS

Preparing A Table in the Wilderness

by **SHUBEL FREEMAN KELLY**
Canners Sales Company, Wilkes-Barre, Penna.

IS the canning industry at the cross-roads? It is.

Shall we guide its destiny to the RIGHT with a sureness of direction toward a brighter, more elevated and greater-profit destination, or shall we allow the "old gray mare" to direct it to the LEFT through its serpentine route of the weeds of dismay, discouragement, and failure?

Are we in the driver's seat or are we just being taken for a ride?

Are we mentally and physically well and able to solve the age-old problems that the necessity of adjustments in any crisis always brings or have we accepted the malignant and disordered state of affairs as insurmountable and without hope of the future?

We might well remember the story of the students at an English University, who decided to play a joke on one of their professors. The boys stationed themselves at various points, awaiting his arrival. When leaving his home the professor walked sprightly and with splendid vigor. Never had he felt better in his life. Upon meeting the first student he was questioned as to what could possibly be wrong with him as he looked very badly. He replied that he felt excellent and ready to meet the experiences of the day. Another student was met and then another, and as he strolled along still others, each playing his part in the practical joke—inquiring as to the professor's health and suggesting a quick return to his home and a visit by the doctor. In the space of a few minutes this man had accepted the vicious suggestions of his illness and in spite of being entirely well returned to his home thoroughly convinced that he was seriously ill.

And so it goes. The canning business has been and is being told so often that it is "sick unto death" that in some cases the mourners have even been called. Fact of the case is that the canning business, under just half-wise management, has yielded a conservatively good living to its owners; therefore, its present "stomach troubles" could hardly be called a relapse.

Canners are the friends of humanity. No other conclusion can be reached. They enjoy the respect of the communities in which they live and are associated with the highest ideals and best practices of the nation. They are in no sense beggars for gratituties. For the moment they lie wounded by the wayside but they should and will be recognized by the good samaritan and the light by which they can be seen in their true worth will shine upon them—for the laborer is worthy of his hire.

The canning operation has not been without flaw. Its intentions have been perfect but its execution has left room for improvement—the same as in any other line of business.

It is somewhat like the colored maid who, about to be married, inquiring of her mistress what color dress she should wear. She was told that if she had been a good girl all of her life she should wear a dress of pure white but if she had failed to retain the fullness of virtue she should wear a dress of lavender. Susie thought fast and furious for a moment and then exclaimed: "Oh, Missie! I'se gwana have a dress of pure white—with jus' a dash o' lavendah".

The canning business has been making the "dash of lavender" smaller and smaller each year. It has risen from a remote seedling to a full sized oak through the years. It has weathered every storm of adversity and found itself with greater strength after the hurricane has subsided.

But what of its nourishment? What of those kindred elements that help support and sustain it? Has it received from these—its brokers and sales representatives—a trueness of purpose and endeavor or has the industry been shuffled and shuttled about by the winds of bitterness, unfair competition, and utter dishonesty? Have those selling agencies lost sight of the honor mark for the dollar mark? Has not the canner all too often been led by the music of soft words of his brokers or representatives into a human rodeo, to find himself in a verbal or mental knock-down-and-drag-out with his buyers because of unholy and ficticious statements concerning neighboring canners or a dismal word-picture of the future?

If canners, and especially the smaller ones, cannot lean on their brokers or sales agents for the stimulating effects required, in heaven's name to whom can they look?

Small canners are at the mercy of the lions—and there are very few Daniels. But brokers and sales agents have the power and should have the sense of duty to protect these canners against the trials now being suffered by them.

Cannot the surge of unfair and unhappy experiences for canners be turned into more equitable and pleasant practices? Has the day passed when the selling fraternity can approach buyers in a calm and quite peace of mind, cross legs, and discuss impassionately the present and impending conditions and let fairness and justice reign?

Cannot a constructive and not a destructive element of thought engender the willingness, or even the desire, among men to know that in every transaction the

(Continued on page 28)

PHILLIPS SALES COMPANY, Inc.

Brokers and Commission

Canned Foods and Canners' Supplies

Located in the heart of Maryland's great packing industry. Brokers and representatives desired in all markets. Packers' accounts solicited.

CAMBRIDGE · MARYLAND, U. S. A.

FOUR TYPES FOUR PRICES

Tomato Field Baskets

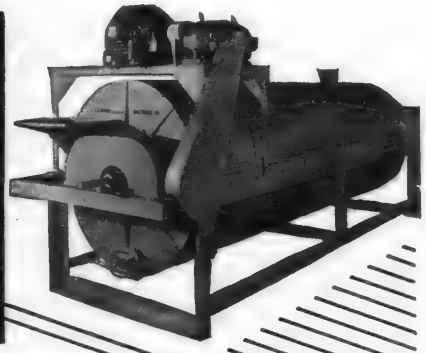
Progressive canners everywhere use $\frac{5}{8}$ baskets instead of old fashion field crates because they save time, labor, space and money. Tomatoes keep longer in Baskets because of thorough ventilation. We are the largest manufacturers in the United States.

Write us for prices

PLANTERS MANUFACTURING CO., Inc.
PORTSMOUTH, VIRGINIA

IMPROVED...

ROBINS CONTINUOUS BLANCHER



DESIGNED TO SAVE TIME AND GIVE ADDED CLEANLINESS

Gives uniform blanch for varying conditions of stock. Close fitting drum. Effective for blanching small vegetables . . . No Bruising. All steel and welded construction. Made in any size and with pulley or motor drive as desired.

Write for details and for general catalog No. 600, describing the entire Robins line of canning equipment.

A. K. ROBINS & COMPANY, Inc. Baltimore, Md., U. S. A.
(Manufacturers of Canning Equipment)

THE 1938 DIRECTORY OF CANNERS

Now Ready! Enter your order now for the 29th edition. Compiled by the National Canners Association, from Statistical Reports and such other reliable data.

Carefully prepared and up-to-date; lists corrected by Canners themselves; verified by competent authorities. The various articles packed and other valuable information is given. Distributed free to members of the National Canners Association. Sold to all others at $2.00 per copy, postage prepaid. The book that is needed by all wholesale grocers, brokers, machinery and supplymen, salesmen, and practically everybody interested in the canning industry. *Get your order in now.*

National Canners Association, 1739 H. St., N. W. Washington, D. C.

PERSONAL CHECKS ACCEPTED

CROP REPORTS

Reported Direct by CANNERS

Contribute your share and keep this column up to the minute.
We urge your co-operation and invite your communications.

PEAS

HOMER, N. Y., July 12, 1938—Acreage about 10 per cent less this year. Yield of early Sweets about 78 cases per acre. Expect a little heavier yield on later varieties. Would say crop compares favorably with normal year.

MARSHFIELD, WIS., July 8, 1938—Have had almost as much rain recently as we had while planting. While the rain has not put us behind in the packing, we do believe it has had something to do with the decreased yield we are getting. Have been packing every day since July 1st; packed on the 3rd and 4th also. Have had no big packing days. The yield has been about 55 cases per acre and do not believe that our total Alaska pack will average much more than that and very likely less. We lost some fields entirely because of the excess moisture and other fiields were partly drowned or washed out. While our yield is not large, believe we can honestly say we are getting very good quality. So far our Ones, Twos, and Threes have been running between 85 per cent and 90 per cent, and sometimes more. We were determined from the start, just as so many other Wisconsin packers were, not to give any field a chance to get ahead of us and so far none has. We are quite certain that with our decreased acreage this year, together with our large vining and canning capacity, that we can, and will, easily keep ahead of the peas, just as we have done so far. Still have almost half of our Alaska crop to pack and all of our Sweet acreage, which was not so large. The Sweets are for the most part looking good, but can't say that they will continue so if we get very many more inches of rainfall. As far as aphis are concerned here, and we aren't so very much concerned, we do have some, and if the weather turns hot, which it has not done for long without a heavy rain, we will no doubt have to dust some of our fields. So far we have done no dusting at all, though our machines are ready and waiting for action when necessary.

ONALASKA, WIS., July 7, 1938—Acreage 60 per cent; yield about 80 per cent.

WHITEWATER, WIS., July 11, 1938—Finished our pack last night. Shortest run we ever made; only 21 days from start to finish. Alaskas 96 per cent of 1937 due to reduced acreage and some Alaska acreage left for seed. Sweets about 225 per cent of 1937. Some sweet acreage also left for seed. Quality fair.

CORN

HEALING SPRINGS, ARK., July 6, 1938—Crop is in fine growing condition. A good rain would be beneficial.

WARRENSBURG, ILL., July 9, 1938—Not operating this year.

ONALASKA, WIS., July 7, 1938—Acreage about 50 per cent. Prospects fair.

WHITEWATER, WIS., July 11, 1938—Sweets: Considerable acreage lost in recent flood, when seven inches of water fell in about two hours one night. Balance acreage looking very good and making rapid growth. Consider prospects about 75 per cent of 1937 at present.

TOMATOES

HEALING SPRINGS, ARK., July 6, 1938—Crop is in fine condition; best prospects for years. Vines are vigorous and setting good. If nothing happens to the crop, will be packing by the 25th. Fine weather conditions.

CAMPBELLSBURG, IND., July 12, 1938—Our crop is coming along nicely on somewhat reduced acreage over last year. Have been getting good rains at about the right intervals. Anticipate a fair to good crop on the acreage set.

CONVERSE, IND., July 12, 1938—We estimate we lost 10 per cent of our acreage due to the heavy rains in June. No rain for the past week; growers have been able to cultivate and crop is coming along nicely. We figure our crop will be late and spotted. Early settings now in bloom, late settings just starting to bloom.

ELWOOD, IND., July 13, 1938—Crop in this important producing section at this time looks fairly good. We have had entirely too much rain since the middle of May which has done quite a bit of damage to the crop. Our acreage in this section was reduced approximately 20 per cent and the excessive rains that we have had since setting have reduced the acreage 10 per cent to 15 per cent again. However, it is entirely too early in the season to predict the outcome of the crop for the coming season, but all indications point to a much lower production of tomatoes and tomato products than last season. Spot canned tomatoes are rapidly cleaning up in this territory.

SHELBYVILLE, IND., July 11, 1938—Our acreage is about the same as last year. However, the plants are very uneven. We estimate the damage due to rain the last two weeks to be about 20 per cent. Our crop is not far enough advanced to make any estimate as to yield.

GREENWICH, N. J., July 7, 1938—The prospects in this vicinity is very good at the present time, just as it has been every year at this time since 1933, and something has happened each year since that time, after this date, before the middle of September, to practically eliminate 50 per cent of the crop. We have just passed through a deluge of rain ten days ago; had it come five weeks later would have damaged 50 per cent of the present crop, as there wasn't a flat field in our township set where they were not under water in large spots. We hardly know how to prepare for a pack, in materials or labor, anymore, as the situation changes so quickly and often.

BRISTOL, PA., July 12, 1938—We have out approximately the same number of acres as we grow each year. Had frost here the night of the first day of June, which hurt some of our fields pretty badly in the low spots. Those spots will not recover. We then had a deluge of rain over a period of 42 hours, which according to the Philadelphia Inquirer, was the heaviest rain we had for 48 years in the same length of time. This rain was followed by severe winds. The rain beat the plants down and the wind whipped them around. A lot of the early fruits were knocked off. However, we hope to have somewhere between 75 per cent and 90 per cent of a crop. At present the plants look well and they are now fruiting up.

MONROETON, PA., July 10, 1938—Vines are growing nicely and setting well. Looks as though we would have a good yield.

CROSS JUNCTION, VA., July 9, 1938—We have about 60 acres contracted but to date the growing crop and weather conditions are very poor. There could not be over 50 per cent of a crop harvested in this community if conditions are favorable from now on.

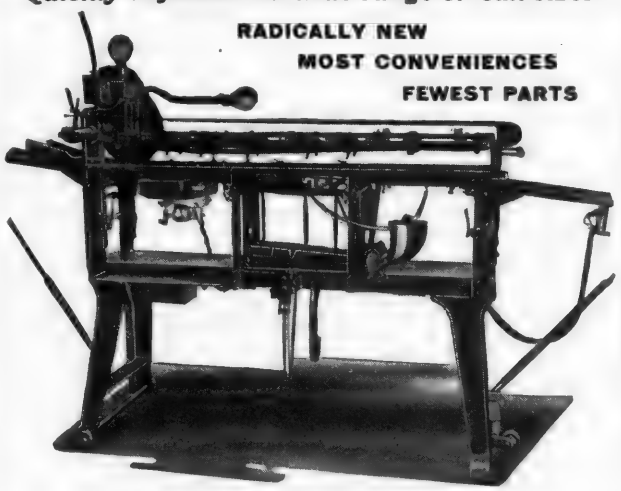
WHITEWATER, WIS., July 11, 1938—Some acreage damaged by flood but tomatoes have made remarkable growth and promise very early maturity. Consider prospects around 125 per cent of 1937 at present.

(Continued on page 28)

KYLER LABELING MACHINE

Quickly adjusted for wide range of can sizes

RADICALLY NEW
MOST CONVENIENCES
FEWEST PARTS



"It has everything with half the parts"

WESTMINSTER MACHINE WORKS

Labeling and Boxing Machine Manufacturers

Westminster, Maryland, U.S.A.

DOMESTIC DISTRIBUTORS—A. K. Robins & Company, Inc., Baltimore, Md.; Chisholm-Ryder Company, Inc., Niagara Falls, N. Y.; Berlin Chapman Company, Berlin, Wis.; Willard Machinery Company, Los Angeles, Calif.; Duncan Equipment & Supply Co., Seattle, Wash.
CANADIAN DISTRIBUTOR—The Brown Boggs Foundry & Machine Co., Ltd., Hamilton, Canada.
FOREIGN DISTRIBUTOR—Ateliers de Construction E. Lecluyse, S. A., Antwerp, Belgium, manufacturers for Continental Europe.

KEEP YOUR INSURANCE ABREAST OF YOUR RISING VALUES

YOU CAN DO THIS
AUTOMATICALLY
WITHOUT EXTRA COST

through

CANNERS EXCHANGE SUBSCRIBERS
at
WARNER INTER-INSURANCE BUREAU

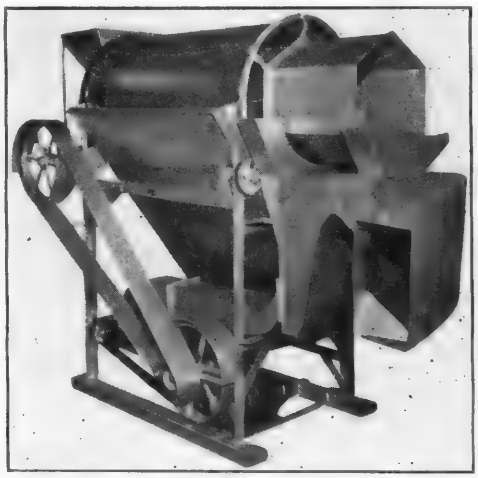
LANSING B. WARNER, Incorporated
540 N. Michigan Ave., CHICAGO

LABELS

MODERN DESIGNS

to meet your trade requirements.

PIEDMONT LABEL COMPANY
INCORPORATED
DESIGNERS - - LITHOGRAPHERS
BEDFORD VIRGINIA



HEX-RO CLEANER
for WHOLE-GRAIN CORN

assures to the user a nice clean pack of higher quality and a resulting higher price for the canned article.

Ask for explanation

THE SINCLAIR-SCOTT COMPANY
"The Original Grader House"
BALTIMORE, MARYLAND

Keep Ahead Of Competition

By "BETTER PROFITS"
Special Correspondent of "The Canning Trade"

"THERE'S nothing more to invent, everything that can be invented has been invented". This remark of the chief clerk of The Patent Office of the United States, has often been quoted as evidence that in all ages men have felt there was nothing more to be done in the way of new inventions, processes, products and so on. The words were spoken in 1848. In one hundred years more than 2,100,000 patents have been issued and more applications are in the mail today.

Last week I had the pleasure of sampling a new variety of vegetables for canning that has been preceeded by a long line of finer than usual products, some of which have gained national recognition. It was a treat to hear the remarks of those who through years of laborious effort have brought the line to its present state, and are now ready for its production on a marketable scale. It was more than encouraging to look at samples of the lithographers' art, as expressed in preliminary sketches, for a label to adorn the new product, and listen to the reasons advanced for its adoption. It was still more fun to realize that if the hopes of those vitally interested in the item are realized, we'll see more and more housewives won to the consumption of canned foods as articles to be included in the menu, when the best is to be served to the most particular. Lastly, everyone present felt confident commercial output would be out of the competitive class and entitled to be sold at a profit by the canner.

The life of the everyday, common or garden sort of farmer is a hard one at best, but he and those on farms at least have one satisfaction: At the end of the day's work, as they leave the fields where they have labored, they can look back and see visible evidences of furrows turned, fields cultivated or harvested. They never have to kid themselves about their accomplishments. The ordinary routine of a canning business is drab at best. Some high lights are in it to be sure, but year after year as crops are sown and grown, harvested and canned, one familiar scene after another presents itself as in the familiar unfolding of the scenes presented by the changing seasons. There is little kick in it for those closest to the picture.

Out on the trade, in the towns and cities where your goods are marketed, you'll find plenty of those looking for a change in the net weight of a package, only a slight change to be sure but one that will work to their advantage. In other places you will find those who want you to pack twelve cans to the shipping container instead of twenty-four, and others who will suggest that you change the vignette on the label you have adopted, in order to gain by means of the change some sales advantage. All these matters are departures from routine but they promise little thrill in their accomplishment or doing.

For your own good, be creative! There is just as much possible romance in the development of a new strain of corn for canning as there is in learning, through a long series of experiments, of a new alloy in the steel business. There is as much happiness to be gained from canning the best can of peaches that can be put up as there is in designing a pattern for silks to be worn by royalty. Your American housewife is queen in her home. Treat her like one, not as some of you have been doing by preserving for her foods not over acceptable on the tables of those who can afford only the lowest priced goods in the market place!

The field of sauces, condiments and appetizers has scarcely been touched by our American canners anxious to put up only a lot of goods to be quickly disposed of at going prices so that warehouses may be cleared for another crop. Whole grain, vacuum packed corn is a rare delicacy at its very best, but, after all, how many oldsters would prefer it to whole grain shoe peg corn canned in its own juices, with only a pinch of salt added with which they have been acquainted for years? Probably the man who first put sugar in canned sweet corn thought he was putting something over, and just so with the man who first sugared late variety, as well as the early sort, of peas for canning. Look over the whole history of canned corn from the time the first can was put up and realize how little we have really advanced in all that time, as far as being able to definitely point to improved flavor, appearance and increased economy in the use of canned corn available to the most of us.

Lima beans have never become a major crop for canning for a number of reasons. Principally, I think, because canners have been too anxious for as large a yield as possible, and also have been unwilling to can all the baby limas they might have produced for fear they would be stuck with them if they were to be disposed of profitably. This afternoon I bought baby limas, the cream of the crop. Preserved at the moment of greatest perfection, perfect in color and flavor with plenty of taste appeal, quick frozen and at nineteen cents a pound! Not the giant "butter beans" of the market gardeners, but genuine baby limas and at a price anyone wishing for a serving might afford. Few, if any, canners produce anything like this perfection in quality in any amount. Only one or two, possibly a few more, seem to have the vision to stand by their guns, to stick to the business that has brought them thus far, and attempt to improve quality to such a point that consumers will still stay with canned foods

in preference to the frozen kind. One canner as we all know, a big one, is heavily interested in freezing crops for canning. This canner is also marketing vast quantities of canned foods. In a few years we will see a much sharper division of marketing forces in this organization than we have now. Either they will drop freezing of foods, and center their efforts on producing more and better canned foods, or they will forget the canned foods business and devote all their interests to the production and selling of frozen food.

It is no doubt too late at this time to do anything drastic about improving the flavor, the appearance and the usability of your products. But you have nearly a year in which to get ready for next season. Before you do a thing, find out what you have at present and what you ought to have besides the indefinite urge to pack something better than you have ever packed before. Probably even before starting to do this you had better find out what the other fellow has that you haven't got. Go to the nearest distributor of the best in frozen foods, and sample the lot as far as your appetite will allow in your home under normal conditions. Lay aside prejudice, forget your interests in canned foods and put yourself in the place of the consumer, that Queen of American Households about whom we ought to think so much and who really receives so little of our consideration. Are our (canned) foods as tasty as those she can buy frozen? Are they as appetizing in appearance when served? Are they cheaper in price and lower in quality? Oh, there are a dozen questions you can ask yourselves with splendid effect on your future operations if you will answer them truthfully.

Then take your products and put them to the particular consumer test. What do I mean by that? Simply that if I were a canner of cherries today, I'd never put up another pack until I had asked, through senior high school students or freshmen in universities, dozens and dozens of consumers just how they felt I might make my product more acceptable in the eyes of the discriminating buyer. Maybe I have been canning too many cherries in number two cans, when some other principal size would have been liked by my trade. Maybe I had better put up my cherries in a heavier syrup than I have been using. Maybe I have not been appealing to the proper trade for the best movement of my pack. All this can be pretty well learned by sampling calls on particular consumers.

If you want to get the real thrill out of meeting competition, however, set yourself a goal to be attained though it take you ten years or more. Determine to produce a strain of fruits or vegetables or a sauce that will be really better, and different, than anything you are producing at present. Many new items are needed in the food trade, almost anything can be marketed that you may provide. As a joke, canned crow was served in an experimental way, largely as a joke, mention in a small way was made in the trade press covering the affair and inquiries started coming in.

Dare to be different in your research and thinking; produce something better, something different, and you'll keep ahead of competition as you never kept ahead before!

Like "STERLING" on Silver

The Food Machinery insignia on canning equipment is like "Sterling" stamped on silver, denoting unquestioned, superlative quality.

Among the great Sprague-Sells family of outstanding canners' machines is the

UNIVERSAL CORN CUTTER

the only machine that successfully cuts corn for *both* whole-grain and cream-style packing.

Besides stepping up the quality of the pack, this machine invariably gives a greater yield—often as high as 15%. Many canners claim that the Universal has more than paid for itself in a single season.

For the complete story of this sensational money-maker

MAIL COUPON TODAY

Modern Canning Equipment for All Food Products

FOOD MACHINERY CORPORATION

Sprague-Sells Division
HOOPESTON, ILLINOIS

FOOD MACHINERY CORPORATION A-301-T
(Sprague-Sells Division) **HOOPESTON, ILL.**

Please send
☐ Full details of the Universal Corn Cutter.
☐ Your complete General Catalog.

Name _____
Firm _____
Address _____
City _____ *State* _____

GRAMS of INTEREST

THE STRIKE INVOLVING more than 1,000 members of the United Fishermen of the Pacific has come to an end at San Pedro, California, after a tie-up of 79 days. The new contract signed with the boat owners is virtually the same as the one in effect when the strike was begun on April 20th.

•

NO LOST TIME accidents during 1937 prompted the Pennsylvania Department of Labor and Industry to issue a gold certificate of award to Hungerford Packing Company, Hungerford, Pennsylvania.

•

THE INDIANA CANNERS ASSOCIATION'S monthly luncheon meeting will be held at 12 o'clock noon, Tuesday, July 19th, at the Claypoole Hotel, Indianapolis.

•

IN THE CHIEF EXAMINERS DIVISION in Washington and in five field offices 112 attorneys investigate claims of unfair trade practices and prepare cases for action by the Federal Trade Commission. A special board of investigation reads magazines, newspapers and radio scripts to detect cases of false advertising, the Consumer's Guide reports.

•

BAY COOPERATIVE CANNERS, INC., expects to have a new $25,000 tomato cannery ready for operation at Essexville, Michigan by August 1st. About 175 growers are members.

•

D. R. MCCAHILL has been appointed Assistant General Manager of Canadian Canners, Ltd.

•

SOME 1200 persons attended a triple get-together party for employers, growers and employees of the Bay Shore Canning Company, Bellevue, Ohio; Bellevue Kraut & Pickling Company, Bellevue, Ohio; and the Lake Erie Canning Company, Sandusky, Ohio. Officers of the companies are so well pleased with the success of the party that plans are already being made for a similar event next year.

•

A FIRE, believed to have been of incendiary origin, caused damage estimated at $35,000 to the warehouse of the Pacific Coast Canning Company at Oakland, California. The concrete canning plant was damaged but slightly.

•

ALBERT STERR, who since 1912 has operated the Star Canning Company at Lomira, Wisconsin, died recently following an accident when a truck in which he was riding overturned.

FRANCIS C. STOKES & COMPANY, Vincentown, New Jersey, is expected to commence the manufacture of tomato juice on August 1st. Mr. Stokes reports that a 6½ inch rain has resulted in an estimated loss of yield of approximately one ton per acre. The company has 740 acres under contract this season as compared to 920 acres a year ago.

•

THE POMONA VALLEY PRESERVING COMPANY, INC., has been incorporated at Los Angeles, California, with a capital stock of $1,000 by Arthur Rogers, Ontario; W. M. Rogers, Cucamonga; and W. T. Gilmartin.

•

"KNOW YOUR PACK" is the title of an illustrated folder just released by Bausch & Lomb Optical Company, Rochester, New York, which describes microscope outfits for mold counting and insect fragment count. The folder may be had through application to the company.

•

UNITED STATES FROZEN PACKS LABORATORY at Seattle, Washington, has moved to Fisheries Hall, University of Washington Campus, East Pacific Street, Seattle, where more laboratory space has been made available.

•

LINK BELT COMPANY has prepared a new booklet of 12 pages, complete with engineering data for figuring applications of their new unmounted roller bearings, which may be obtained by addressing the company at their nearest office.

•

G. W. HUME COMPANY'S offices have been moved to 260 California Street, San Francisco, California.

•

A SINGLE VINER operating on Wisconsin Early Sweets vined 804 field boxes with net weight of 22,400 pounds shelled peas, in an ordinary day on July 9th. Viner started about 6:00 A. M. and quit at 7:00 P. M. The users consider this close to record for time.

•

THE COURTS have upheld the position of the Federal Government and of the Pennsylvania State Department of Agriculture that no matter how you spell it or pronounce it—ketchup, catchup or catsup—must be made from tomatoes and nothing but tomatoes, except for the necessary spices and flavoring materials.

•

CANCO'S MR. STURDY SPEAKS

July 18—Saco, Maine, Saco-Biddeford Kiwanis Club, at noon.
July 25—New Bedford, Mass., Red and White Grocers, evening.
July 26—Lynn, Mass., Kiwanis Club, at noon.

DISTRIBUTORS ACTIVITY

By "OBSERVER"

Special Correspondent of The Canning Trade

SCORED FOOD PEDDLERS

"VERY rarely, either in nature or in our economic life, has greatness or size been achieved other than from a small beginning," says J. H. McLaurin, president of the United States Wholesale Grocers' Association, in commenting on the growth of food "peddling". "It is the insidious evil or disease that is the most dangerous, in its origin almost imperceptible or noticeable, in its growth so gradual that it reaches an alarming condition, invoking its penalty almost before we become aware of its seriousness, and such may be, likewise, said of those evils that inject themselves into our business and economic life.

"The orderly and sound system of distribution is faced today with an evil that has grown almost imperceptibly until it has now reached those proportions that command attention and thought—and likewise, action, of the wholesale grocers. We refer to peddlers.

"The peddler of food products, whether such products be green groceries or shelf goods, cannot successfully substitute for the retail store, for such system in its operation merely constitutes a makeshift for distribution, and impairs in a very definite manner those efficient services rendered by the home merchant.

"This does not have reference to the farmer who brings into the market or sells through the city streets products of his labor; but on the other hand, there is and can be no good purpose served by the peddler or hawker of merchandise in competition with the tax-paying community-supporting merchant.

ADVISES STUDY—"This matter is one which, like most others, cannot be corrected or cured from this office; but we can lay the subject before you with the thought that you will wish to investigate it and deal with it in accordance with what you find the conditions in your market and territory demand, and expect and receive fullest cooperation from your Washington office.

"Our attention has been directed to the fact that in some territories the type of peddler referred to does not pay merchandising taxes, either city or state and county. Why not? Perhaps the correct answer to that question may be that the merchants in many communities have, either through indifference or neglect, permitted this evil to grow up around them almost unconsciously.

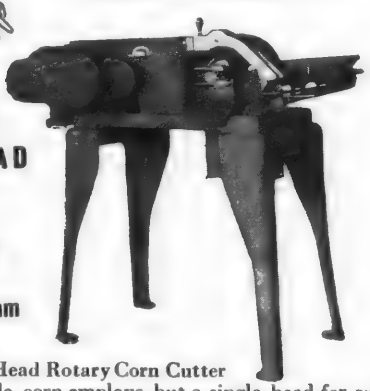
"This office invites a discussion of the peddler system as to whether it obtains in your market and, if so, to what extent, etc. That the subject is one which demands serious thought and attention is evidenced by references that are being made to it by merchants in various sections of the country."

For Lower Costs and Greater Production

THE NEW CRCO SINGLE HEAD ROTARY

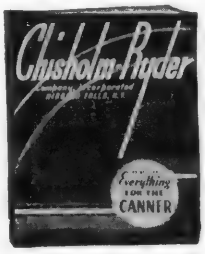
Corn Cutter

For Whole Grain or Cream Style



The CRCO-Wheeler Single-Head Rotary Corn Cutter for whole grain or cream style corn employs but a single head for cutting and scraping—delivering a superior product, free from cob particles at any depth of cut. A high-speed cutter producing up to 125 ears a minute.

Send for complete Catalog No. 381. Over 172 pages.



Chisholm-Ryder

Company, Incorporated

NIAGARA FALLS, N.Y.

SEATTLE, WASH.
COLUMBUS, WIS.
INDIANAPOLIS, IND.
NIAGARA FALLS, CAN.
A. K. Robins & Co., Inc.
Baltimore, Md.
James O. Leavitt & Co.
Ogden, Utah

THE BEST OF Everything FOR THE CANNER

MODERN

GAMSE

Labels

In Beautiful Colors Prompt Delivery

GAMSE LITHOGRAPHING CO. INC.

Herman Gamse, Pres't.

419-421 E. LOMBARD ST.

BALTIMORE, MD.

PHONES—PLAZA 1545-1546

CONTAINER ISSUE UP AGAIN

GROCERY distribution groups which have been advocating action by the canning industry in the direction of adopting better quality shipping containers for canned foods are renewing their pressure upon canners for a change in container specification for the 1938 pack.

The activities of the distributors' committee thus far have been largely in the direction of inter-group conferences, designed to develop definite recommendations for container specifications and packing standards for submission to the canning trade. The canners' National Association is not represented on this committee, contrary to the policy pursued in the setting up of national canners' conference committees.

Annual losses to canned foods in shipment arising both from faulty containers and careless loading and handling of such products in shipment have been steadily mounting in recent years. While data on losses arising from dented cans and damaged labels are lacking, it is estimated in industry circles that they run into the millions.

The need for better cartons is generally recognized. Just why the canning trade, in the face of rising costs and relatively low selling prices for its products, should be called upon to absorb the cost of higher-grade cartons, however, is a question which many canners would like to see satisfactorily answered.

Wholesale canned foods buyers, many canners contend, will have to lay aside their "chisels" and see eye to eye with the canning industry on the matter of fair prices for its products, if any general support for the program of improved shipping containers is to be obtained from packers during the current season,—pressure from organized distributors' groups to the contrary notwithstanding.

SUPERS PLAN MEETING

PLANS for the second annual convention of the Super Market Institute, to be held at the Hotel Sherman, Chicago, September 19-21, are rapidly taking shape, M. M. Zimmerman, executive secretary of the Institute, reports. "A departure in the program this year, which promises to arouse wide interest, as well as furnish a fund of practical advice for operators," Mr. Zimmerman says, "Is the introduction of a series of 'clinics' on super-market operation. These will cover every phase of super market operations, beginning with parking space and the exterior construction of the super market, to the operation and set-up of the departments and overhead. These clinics will be illustrated by slides and exhibits, and operators whose experiences have been notable in each phase of operation, will present the results of their own efforts.

"Among the topics and speakers already scheduled are "Building a Loyal Employee Organization in the Super-Market", by J. Weingarten, president of J. Weingarten, Inc., Houston, Texas; "A simple and Effective Accounting System For the Super-Market," by W. D. Sutherland, treasurer, Henke & Pillot, Inc., Houston, Texas; "A Remodeling Program That Increased Volume and Customer Good-Will", by P. A. McClenny, president, A. B. C. Stores, Inc., Houston, Texas; "The Produce Department on a Self-Service Basis—Is It Practical and Profitable?", by S. N. Goldman, president, Humpty-Dumpty Stores, Standard Food Stores, Oklahoma City; "Service For Some—Self-Service for Others Under One Roof", by Thomas Lynn Remley, president, Lynn Markets, Inc., St. Louis; "Specialty Departments—Do They Belong in the Super-Market?", by Maurice L. Greenburg, Moby's, Columbus, Ohio; "A Radio Program Which Enlarged the Shopping Radius", by William D. Powell, general manager, Home Public Market, Denver; "The Farmer Likes the Super-Market", by N. S. Constans, president, Constans' Drive-In Market, Duluth; "The Manufacturer and the Super-Market", by Paul S. Willis, president, Associated Grocery Manufacturers of America; "Price Cutting and the National Brand", by W. H. Albers, president, Super Market Institute and president of Albers' Super Markets, Inc., Cincinnati; and "The Wholesale Turns Super-Market Operators", by J. E. Grosberg, secretary, Super-Market Institute and president, Central Super-Markets, Inc., Schenectady.

"From present indications" Mr. Zimmerman concludes, "it is expected that the leading super-market operators from all parts of the country will attend in addition to other representatives of the food world"

SUGAR STRIKE ENDS

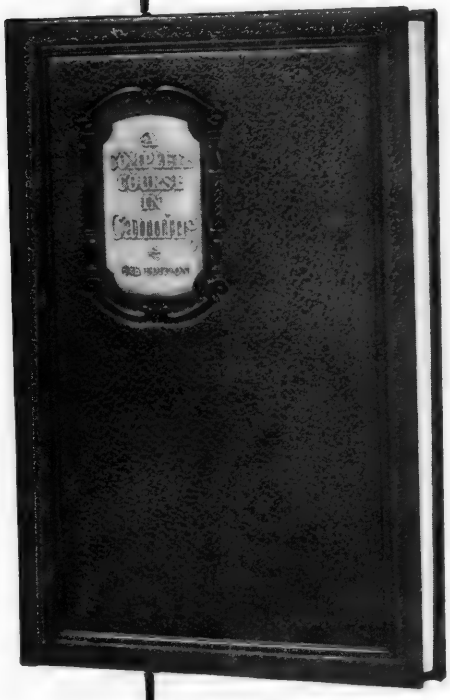
THE tie-up which had paralyzed Philadelphia's sugar refineries since June 23, was broken during the past week with capitulation by the refiners to many of the demands of the strikers, represented by a C. I. O. union committee.

The reopening of these plants removed the threat of a sugar shortage in sections of the East served by the Philadelphia plants.

Following the termination of the difficulties, union officials pledged themslves to a vigorous organization campaign among southern refiners where wage levels, they declared, are as much as 50 per cent below those prevailing at sugar refineries on the Atlantic seaboard. The union officials also pledge themselves to continue their fight against the sale in United States markets of sugar refined in the tropics.

•

FRUIT JUICE MAKING—Beginning with our issue of June 27, we have been serving you some exceptionally interesting and important matter on the making of fruit juices, detailed down to the last point. You may not now be interested in making fruit juices, or other juices, but you will do well to keep these issues and the remainder until the article has been completed, for when you want directions you will have to pay heavily for them, and you will not be able to get better ones. We advise owners and users of "A Complete Course In Canning," that book of formula and directions for the making of all food products, to clip the pages from these issues and file them in the book. They make a valuable addition to this manual.



360 Pages, size 6 x 9
Bound in Leatherette
Stamped in Gold.

A COMPLETE COURSE in CANNING

Sixth edition

360 pages of proven procedure and formulae for everything "Can-able"

All the newest times and temperatures . . . . .
All the newest and latest products . . . . . .

• Fruits • Vegetables • Meats • Milk • Soups • Preserves • Pickles • Condiments • Juices • Butters • Dry Packs (soaked) • Dog Foods and Specialties in minute detail, with full instructions from the growing through to the warehouse.

Used by Food Processors to check times, temperatures and RIGHT procedure . . . by Distributors to KNOW canned foods . . . by Home Economists to TEACH the subject of food preservation.

For sale by all supply houses and dealers . . . or direct. Price $10. postpaid.

Published and Copyrighted by

THE CANNING TRADE

The Canned Foods Authority

BALTIMORE, 20 S. GAY STREET MARYLAND

Grand Pappy used Rogers Seed - Daddy uses 'em too!

When Canners use one Grower's stocks for half a century, there must be a reason, and that reason is not hard to find.

It Pays Them to Do It

Many satisfied users of Rogers' seeds, from Maine to California and from Minnesota to Texas can testify to the good quality of Rogers' stocks.

"Blood Tells"

Rogers Bros. Seed Company

308 W. WASHINGTON ST. CHICAGO, ILLINOIS

BREEDERS & GROWERS OF QUALITY SEEDS FOR QUALITY PACKERS

THE MARKETS

IN LEADING CANNED FOODS CENTERS

WEEKLY REVIEW

Market Prices Have Broken Through—Crop Conditions Seem To Indicate Heavy Packs—Revise Your Intentions To Pack, and Hold This Fine "Vintage" Year's Goods For a Profit.

LOW PRICES—After having hammered steadily for months at the market, or tried to kill it through lack-buying, they seem to have cracked the surface this week and low prices on various canned foods are quoted, as if a mere matter of course. Future tomato prices are made much of, 1's at 36½ cents; 2's, 57½ cents; 2½'s, 80 cents; 10's, $2.65. On the other hand, they say that spot tomatoes are being held very firmly, 5 to 10 cents higher than these prices; but with southern tomato canning on, and some other sections about ready to begin, spot prices will soon be pronounced same as futures. In other words, futures become spots. It's an old custom in the market, and the buyers rarely ever fail to make their point.

And other low prices mentioned are: standard cut green beans 52½ cents; standard crushed corn 57½ cents, and standard 4's peas 67½ to 70 cents.

And as might be expected the buyers are taking big blocks of goods at these prices, covering quite well. And the cuts are extending to other lines of canned foods, to salmon, the fruits and other products. Once the surface has been broken it is hard to hold anything. And the Bureau of Agricultural Economics, in its report of canning crop conditions as of July 1st (issued July 13th), which you will find elsewhere in this issue, lends a decided push to these downward prices. They regard prospects as about equalling last year's. If they are right—and it is never fair to hold as certain any prediction on crop outcome—and if what the canners report on the packs so far made, as to the quality—better than ever—is also right, we should finally have a definite answer on this question of quality. If canners are forced to sell their fine quality at or below cost, it will prove a hard blow to quality. Having made such a splendid effort to up the general quality of this year's packs the canners are entitled to reward. Don't fool yourself; the buyers know full well that such quality canned foods will not hang on the retailers' shelves, that such stocks will move off their floors in steady streams; but they are going to pay only the prices they are compelled to pay, in other words, the prices you ask and hold out for. You can get the reward of your fine quality packing if you have the backbone to fight for it, and not permit yourself to be sold out. If you run your own business and do not let representatives and buyers run it for you. The "vintage" of the 1938 packs will long be famous; a mark which other years will strive to equal. The goods are yours, not hypothicated through future contracts, more yours than ever before. If you do not capitalize that fine vintage, and present ownership, then blame no one but yourself. Go to your banker, or financial backer, and urge him not to press you, but to let you remain off the market, with a fair price on the goods, to which they are entitled through that quality, a price which will be easily obtainable as soon as the weak-kneed and controlled canners are sold out. If even a small percentage of the independent canners withdrew from the market the goal would soon be made.

CROPS—We have already referred to the crop report of the Government. In addition to this you have very good reports from many sections, and they are all straight-from-the-shoulder reports, well worth weighing. The weather has been generally favorable this week, and crops are making good progress. But if other sections have anything like the Japanese beetle invasion seen in and around Baltimore, it is hard to understand how they will get any crop. Maybe present prospects will come through 100 per cent, but remember the packs have not yet been made. So don't take your losses until you have those over-packs and are forced to pay for your foolishness. That is one great advantage in having this early warning: you can cut your intentions to pack; reduce the pack as you deem best and safe. You certainly are not going to pack at the above quoted low prices. You will have to take your contracted acreage, but if you pack that in the fine quality indicated, you will have a light pack, and of fine quality, and on that you can't loose. In other words, there is ample time to save yourselves from the indicated over-pack. You had better do it.

You have the market conditions in all other leading markets, and the pages of canned foods prices, elsewhere, and they should all be studied if you want a comprehensive understanding of the conditions we face.

•

NEW YORK MARKET

By "New York Stater"

Special Correspondent of "The Canning Trade"

Further Improvement — Buying on the Increase — Future Tomato Prices—Good Business in Beans—All Prices On Low Level—Fruits Receiving Attention—Sardines Short.

New York, July 15, 1938.

THE SITUATION—Trading activity in the canned foods market has shown further improvement during the past week, and it is evident that jobbers are in need of replacement stocks on a number of items. More prompt shipment business is being witnessed and

distributors are showing a willingness to pick up carry-over stocks where such are available at attractive levels. Variance in California packers' price views on 1938 fruits is tending to slow down interest in offerings at the moment. Vegetables generally are commanding more attention

THE OUTLOOK—With stock and commodity prices substantially over levels prevailing a month ago, and general confidence in the business outlook decidedly improved, canned foods distributors are liberalizing their inventory policies somewhat. The next several weeks should witness a continuation of a policy of accumulation on canned foods lines where some degree of price stability has been obtained.

TOMATOES—Rumors that the F.S.C.C. might enter the tomato market and establish a virtually "pegged" minumum have stimulated buying interest in southern packs this week. Standards are reported offering at minimums of 36½ cents for 1s, 57½ cents for 2s, 80 cents for 2½s, 87½ cents for 3s, and $2.65 for 10s, f. o. b. country canneries, with the usual differentials prevailing for shipments f. o. b. Baltimore, for August-September shipment from the new pack. Spots are short and firmly held.

BEANS—The market for new pack beans is definitely firming up, following some large-lot business reported put through at 52½ cents for cut green standard 2s and $2.40 on 10s. Currently, canners are quoting the market on standard cut green at 55 cents for 2s, 77½ cents for 2½s, and $2.50 for 10s, with extra standards at 60 cents for 2s, 85 cents for 2½s, and $3.15 for 10s. On standard cut wax, 2s are held at 62½ cents and 10s at $3.25, with fancy whole 3 sieve at $1.00 and $4.50, respectively.

CORN—With spot corn holdings in the east steadily dwindling, buying has shown a little improvement. Standard crushed is offering at 57½ to 60 cents for 2s and $3.60 for 10s, f. o. b. southern canneries, with extra standards at 62½ cents and $3.75, respectively. On fancy wholegrain shoepeg, canners hold 2s at 80 cents and 10s at $5.50, with fancy wholegrain Golden Bantam at 80 cents for 2s and $5.25 for 10s.

PEAS—The market for standard peas is expected to stabilize around 70 cents, although some small lots are still available at 67½ cents at the canneries. New packs are shaping up well as to quality, and reports from Wisconsin indicate that pack totals will run ahead of last year, notwithstanding the rather substantial acreage curtailment in that state this year. Minnesota is having a good pack, with quality generally excellent.

LIMAS—Southern packers are getting some business on new pack limas for August shipment, with standard fresh white offering at 52½ cents for 1s, 75 cents for 2s, and $3.65 for 10s, and standard green and white mixed at 72½ cents for 303s, 82½ cents for 2s, and $4.15 for 10s. On tiny green, canners offer 1s at 95 cents, 303 at $1.30, 2s at $1.37½, and 10s at $6.85.

NEW R. S. P. CHERRIES—New York State canners this week announced tentative opening prices on new pack red sour pitted cherries on the basis of $1.05 for 2s, natural, $1.15 for 2s in 20 degree syrup and $1.25 for 2s in 40 degree syrup. On 10s, natural, the market ranges from $4.75 upwards, while 303 are held at 97½ cents for natural, $1.05 for fruit in 20 degree syrup, and $1.15 for cherries in 40 degree syrup. While the crop is short this year, canners are reportedly in position to buy the fruit at attractive levels.

NEW PACK 'COTS—Independent California canners were offering 1938 pack apricots this week on the basis of $1.55 for fancy 2½s unpeeled halves, $1.30 for choice, and $1.20 for standards. This compares with some spot offerings at $1.50 for fancy, $1.20 for choice. The disparity in prices on carry-over 'cots and new pack quotations is naturally tending to slow down buying interest.

PEACHES—Buyers continue to hold off the market for canned peaches, pending some action by the leading California packers on their price lists. Until these factors make known their plans, revised price lists of independent packers are not bringing out much buying interest. Independent packers have cut their prices to $1.25 for standards and $1.35 for choice, f. o. b. California, with these quotations guaranteed against opening prices when named. These prices are 20 cents under the levels maintained during the canners' agreement, but due to heavy carry-over stocks by packers, many buyers apparently feel that the market may work still lower.

OTHER FRUITS—There were no changes reported in other divisions of the canned fruit market during the week. Distributors are studying confidential advices anent tentative prices on new packs for buyers' labels, but in the open market little trading is in evidence as yet. Carry-over stocks are moving in a small way at some concession from posted prices, usually determined by conditions surrounding each individual transaction.

SARDINES SHORT—A continued scarcity of Maine sardines is reported. It is estimated that up to the middle of July, little more than 80,000 cases have been packed in Maine, which compares with a pack of close to half a million cases by this time last season. Canners are firm at $2.80 for quarter oil mustard keyless and $3.70 for quarter oil or mustard key cartons, with three-quarter mustard keyless holding at $2.70.

SALMON—Coast reports indicate that the current season's pack will prove adequate for the trade's requirements, and only routine buying interest is in evidence at the moment. Canners are offering salmon for prompt shipment on the basis of $2.05 minimum on reds, $1.00 for pinks, and 95 cents for chums, with ocean-caught cohoes at $2.25, all f. o. b. Seattle.

SCOTT VINER
CANNING MACHINERY
SCOTT IMPROVED VINERS—VINER FEEDERS
founders of
HYDRAULIC CONVEYING EQUIPMENT
THE SCOTT VINER CO. COLUMBUS, O

CHICAGO MARKET

By "Illinois"

Special Correspondent of "The Canning Trade"

Better Inquiry and Demand But Buyers Fearful—Sweet Peas Doing Well in Wisconsin—The Prices—Minnesota Not Doing So Well—Cut in Corn Acreage and Bad Weather Improve Its Condition—Spot Beets Cleaning Up.

Chicago, July 15, 1938.

GENERAL MARKET—A feeling of unrest prevails. The large pea pack that is apparently being recorded plus the somewhat disorganized situation on fruit all along the Pacific Coast, makes the buyer fearful.

Brokers report a wider inquiry and better demand, but the midsummer volume is not up to the normal. Fear as to the stability of values on all canned foods, is the dampening factor.

PEAS—Wisconsin is recording a good sweet pack, good in quality as well as yield. Some say that Wisconsin canners will be able to win back this year, their former dominant position in the industry.

Some quotations out of Wisconsin have been noted as follows:

No. 2 Fancy Sifted Early Junes	$1.05	factory
No. 2 Ex. Stand. Sifted E. J.	.85	factory
No. 2 Standard Early Junes	.67½	factory
No. 2 Stand. Sifted E. J.	.72½	factory

Reports are that the quantity of standard large siftings in Alaskas will be very light and that the real task will be to dispose of No. 2 extra standard No. 2 sieve earlies, and No. 2 extra standard No. 3 sieve earlies. From Minnesota come reports that the sweet pea crop in that State is not turning out as good as it looked two weeks ago and that the pack there will be relatively small.

The trade while purchasing freely the low priced standard large Alaska offerings, are holding back on the better and smaller grades.

CORN—The market seems to be working toward a firmer basis. 25 per cent acreage reduction this year plus considerable damage to the growing crop in certain sections of the Middlewest, makes it look as if the low values prevailing on spots today will soon be history. Those values are:

No. 2 Standard Cream Style White	$ .65	factory
No. 2 Standard Cream Style Yellow	.75	factory
No. 2 Ex. Stand. Cream Style Yellow	.80	factory

Some future corn quotations have been noted as follows:

	No. 2 tin	No. 10 tin
Extra Standard Narrowgrain	$ .75	$3.75
Extra Standard Golden	.77½	4.00
Fancy Country Gentleman	.90	4.40

BEETS—Crop prospects are good in Wisconsin. The weather the past two weeks has been ideal. Canners report light future sales against the coming pack.

Spots are cleaning up handily with No. 2½ fancy cuts at 65 cents, factory, and No. 10 fancy cuts at $2.50, factory.

ASPARAGUS—The first rush is over as applied to orders and the local trade does not seem to be interested except just for fill-ins. The market is firm and one hears of very little price cutting.

GREEN AND WAX BEANS—Packing begins within the week in both Michigan and Wisconsin. Crop prospects are reported favorable. Canners are not crowding particularly for sales. Some low prices on new pack have been named such as:

No. 2 Fancy No. 3 Whole Green	$1.15
No. 2 Fancy Small Cut Green	.95

f. o. b. Wisconsin and Michigan factory points.

SPINACH—All is quiet on this front. Market is holding its own. Stocks are light in canners' hands. The Ozarks are quoting:

No. 2 Extra Standard Spinach	$ .65	factory
No. 2½ Extra Standard Spinach	.85	factory
No. 10 Extra Standard Spinach	2.75	factory

GRAPEFRUIT AND GRAPEFRUIT JUICE—The total grapefruit juice production in Texas of 4,700,000 cases during the past season, which was more than double that of the previous season, has developed considerable talk around the market. Even the F. S. C. C. recent purchases have not improved values and No. 2 fancy juice is still available in the Rio Grande Valley district at 57½ cents to 60 cents, factory.

Florida seems to be holding its own in good shape and one is impressed with the stability of the market from that Southern section.

PATMAN ANTI-CHAIN BILL—Congressman Patman in his address before the N.A.R.G.U.S. Convention outlined in part as follows:

"Here are a number of direct indictments against the interstate chain system:

They are the products of a few monopolistic money masters of Manhattan.

Cost of food is higher in chain-controlled towns and communities.

They do not contribute to local relief, local schools, churches, or charities, except a miserly sum—entirely out of proportion to their business—in an effort to buy good will.

They break down local rent schedules by destroying the independent merchants.

They compel our boys and girls to work for absentee owners for long hours at starvation wages.

They crush our labor as monopoly invariably does.

They are draining capital from local towns.

They destroy the independence and self-reliance that built this Nation.

They do not create. They take away what others have created.

They never guarantee a doctor bill for an unfortunate employee.

They take local privileges and opportunities that formerly enabled local citizens to assume local relief assistance and responsibility." (To be continued.)

CALIFORNIA MARKET

By "Berkeley"

Special Correspondent of "The Canning Trade"

Busy On New Prices—Prices to Growers Not Settled—New Peach Prices—Preserve and Jam Prices—Tomato Holdings—Salmon Pack Lags.

San Francisco, July 14, 1938.

PRICES—The trade has had a busy week with the bringing out of tentative opening prices on some early pack fruits, formal opening prices on quite a few items, including Alaska salmon, and revised prices on California cling peaches. And selling departments have been a bit busier than for some time, with a flood of small orders for immediate delivery and some future bookings.

APRICOTS—Tentative opening prices on apricots have been brought out by some of the leading packing interests, including the California Packing Corporation and Libby, McNeill and Libby. Those of the Corporation are as follows: Del Monte Brand, halves unpeeled, buffet, 55 cents; No. 1 tall, 90 cents; No. 2 tall, $1.10; No. 2½, $1.40, and No. 10, $5.00. Whole peeled, No. 1 tall, 82½ cents and No. 2½, $1.30. Standard halves unpeeled, No. 1 tall, 72½ cents; No. 2 tall, 95 cents; No. 2½, $1.20, and No. 10, $4.65. Water halves unpeeled, No. 2½, $1.00 and No. 10, $3.40. Solid pack pie is quoted at $4.50 for No. 10. The prices of Libby, McNeill and Libby are practically identical, with the addition of whole peeled sweet spiced apricots at $1.00 for No. 1 tall, $1.60 for No. 2 tall, and $5.80 for No. 10.

While prices on canned apricots seem to be well established, prices to be paid growers for fruit are not so well settled. Harvesting is under way in the Santa Clara Valley and rumors are rife that canners are paying from $17.50 to $25 a ton. A group of growers in San Benito County have banded together to hold out for $45 a ton. That's quite a wide spread in ideas. The prices being quoted this week indicate that canners have arranged for stocks well below the price asked by the organized growers.

PEACHES—Revised prices on canned cling peaches have been brought out by the Canners Industry Board, bringing this fruit into closer competition with other items in the list. The revised prices are: 8-oz. fancy, 60 cents, choice 55 cents; No. 1 tall fancy 95 cents, choice 87½ cents and standard 82½ cents; No. 2 tall fancy $1.20, choice $1.10 and standard $1.00; No. 2½ fancy $1.50, choice $1.35, standard $1.25, seconds $1.15 and water $1.10, and No. 10 fancy $5.15, choice $4.65, standard $4.15, water $3.55 and solid pack pie $4.25.

PRESERVES—Opening prices on Del Monte brand preserves and jams have been brought out. Quoted f. o. b. California common point or dock are: Apricots, buffet 72½ cents, No. 2 tall $1.60, and No. 5 $4.50; apricot-pineapple, buffet 77½ cents, No. 2 tall $1.75, and No. 5 $4.95; peach, buffet 75 cents, No. 2 tall $1.75, and No. 5 $4.90; peach-pineapple, buffet 77½ cents, No. 2 tall $1.80, and No. 5 $5.15. Items packed in the Pacific Northwest and f. o. b. common point there or dock Portland, Ore., are De Luxe plum, buffet 72½ cents; No. 2 tall $1.65, and No. 5 $4.50; blackberry, buffet 80 cents, No. 2 tall $1.75, and No. 5 $4.90; loganberry, buffet 80 cents, No. 2 tall $1.75, and No. 5 $5.75; raspberry, buffet 85 cents; No. 2 tall $1.95 and No. 5 $5.75; strawberry, buffet $1.05; No. 2 tall $2.45, and No. 5 $7.00. All of these items are also packed in glass.

TOMATOES—The tomato market continues quiet, with the trade pouring over the carry-over figures as of June 1, recently released by the Canners League of California. Holdings of some in the list are more than double those of a year ago at the corresponding date. The figures of actual cases unsold, with those of a year ago, are:

	Unsold June 1, 1938	Unsold June 1, 1937
Tomatoes	1,468,373	839,795
Tomato juice	1,131,312	522,574
Tomato catsup	547,103	282,244
Tomato puree	423,920	209,374
Tomato sauce	711,357	496,855
Other tomato products	54,915	36,961

SALMON—Opening prices have been brought out on Alaska salmon by most packers. Reductions have been made on Alaska reds, but pinks and chums are about as the recent spot market. The prices of the Alaska Packers Association are as follows: Alaska Packers Association brands of Alaska reds and Del Monte and F/B Alaska red sockeyes, No. 1 tall, $2.15; Initial brand Alaska king salmon, $1.70; Sledge brand medium red or Coho, $1.60; Alaska pinks, $1.00; chum salmon, 95 cents, and Hatchery and Iceberg brands red salmon short cuts, $1.70. Prices on halves flat are $1.50 for the various brands.

Advices from Alaska are to the effect that the pack there to date is well behind that of a year ago to the corresponding date. For a time it was almost fifty per cent less.

MISCELLANEOUS — Opening prices on quite a variety of canned products have been brought out during the week by the California Packing Corporation under its Del Monte brand. The lists include Maraschino type cherries, beets, pumpkin and peas and diced carrots: Maraschino cherry prices for No. 10 tins are: $19.00 for large, $20.00 for medium and $21.00 for small. Bonanza brand whole cherries are quoted at $12.25, with Festival brand, cherries in pieces, at $9.00. Whole beets are quoted at 95 cents for No. 2 tall, with sliced at 85 cents. These will be available in September. Canned pumpkin, of Oregon pack is quoted at 65 cents for No. 2 tall, 85 cents for No. 2½, and $2.45 for No. 10. Peas and diced carrots are quoted at $1.27½ for No. 2.

The peach committee of the California Farm Bureau Federation, at a meeting at Sacramento, agreed to recommend a minimum price of $30 a ton for No. 1 cling peaches and a pack of 7,500,000 cases. This recommendation was later submitted at a hearing in the State Assembly chamber to consider a proposed marketing order for canning cling peaches, to be administered by the State Department of Agriculture. Canners oppose the plan to pack 7,500,000 cases, claiming this is too much to put on the market, considering the heavy carry-over.

GULF STATES MARKET

By "Bayou"

Special Correspondent of "The Canning Trade"

Poor Fishing Holds Shrimp Production Down—Demand for Crab Meat Light—Rain Badly Needed—Vegetable Packing Moving in a Small Way.

Mobile, Ala., July 15, 1938.

SHRIMP—The shrimp situation remains unchanged from a production standpoint. Very few shrimp are being produced in this section and it is not expected to be any better for a month to come.

Trawling is prohibited in the bays and only a few of the shrimp boats are fishing in the Gulf, where the shrimp are scattered and the sharks bad.

The sale of shrimp continues in limited quantities, but buyers are showing more interest than heretofore, which brings orders in larger quantities.

Summertime is beer-drinking time and this always boosts the sale of shrimp in the South, because practically all of the beer parlors serve shrimp. It is an old established custom in the South to eat shrimp with beer and no beer party is complete without them.

The salty taste and the deliciousness of the shrimp has particular appeal to the beer drinkers.

The price of canned shrimp is $1.45 per dozen for No. 1 large; $1.35 for medium, and $1.30 for small, f. o. b. factory.

CRAB MEAT—The production of crab meat continues at a low ebb in this section and the demand being light, too, makes the supply about equal to the demand, which balances matters pretty well.

The price of fresh white or flake meat is 28 cents per pound, and the claw 18 cents, f. o. b. shipping point.

OKRA—Okra continues to keep the vegetable canneries of this section busy, notwithstanding the dry hot weather. We are needing rain here very badly. However, okra withstands a good deal of dry weather, yet there is a limit to everything and if a general rain don't show up soon, the okra crop will suffer.

The thermometer registered high temperatures last week between 94 and 99 degrees, which made it very uncomfortable.

The price of cut okra is 75 cents per dozen for No. 2, and $3.50 for No. 10.

Okra and tomatoes is 95 cents per dozen for No. 2, and $4.50 for No. 10.

Whole young okra is 95 cents per dozen for No. 2, f. o. b. factory.

CROWDER PEAS—This pack is moving along in a small way. Like other vegetables, the crowder peas crop is needing rain.

The weather man has predicted partly cloudy and local thundershowers for this locality, which will help to some extent, but a good heavy rain is needed to soak the ground.

The price of crowder peas is 90 cents per dozen for No. 2, and $4.50 for No. 10, f. o. b. factory.

PIMIENTO PEPPERS—The crop is suffering from the lack of rain and this may delay the pack to some extent. Pimiento is a minor pack in this section, but efforts are being made by canners to grow them more extensively.

We are handicapped by soil conditions which we are endeavoring to overcome and believe that we will be successful.

Our adjoining State, Georgia, is one of the largest canners of pimientoes in the country.

THE TRI-STATE GET-TOGETHER

ON Thursday of this past week, the Tri-State Packers Association held their annual Get-together Luncheon, Golf Tournament and Board Meeting begun several years ago by the Associations late Secretary Casius M. Dashiell, and which, since his death has been continued as a memorial to him. Some 75 canners, machinery and supply men, and crop specialists were in attendance. After the luncheon, President Herman N. Lutz called upon Dr. T. B. Symonds of the University of Maryland and National Canners Association's ex-president Ralph O. Dulany for a few remarks. The Board then went into session. The golf tournament was an interesting event and most of those in attendance participated. The score for the first 9 holes was the basis for handicapping for the total 18 holes. The final results found three tied for first honors with net 76's. They were L. M. Goodwin, Harry Kronau and T. R. Baker. Lynn Baker and C. A. Beach were tied for second with 77's. Intermittant rains had little or no effect on cooling the interest of the players. It was an enjoyable occasion.

STATES LEADING IN CANNING ACREAGES

		1938
LIMA BEANS:	Total U. S.	50,800 acres
1st—New Jersey	12,000 acres	
2nd—Delaware	10,800 acres	
SNAP BEANS:	Total U. S.	123,900 acres
1st—Maryland	20,300 acres	
2nd—New York	14,700 acres	
BEETS:	Total U. S.	13,520 acres
1st—Wisconsin	4,460 acres	
2nd—New York	3,800 acres	
CABBAGE (Kraut):	Total U. S.	25,000 acres
1st—New York	8,550 acres	
2nd—Wisconsin	7,100 acres	
CORN:	Total U. S.	335,360 acres
1st—Minnesota	55,400 acres	
2nd—Illinois	53,300 acres	
CUCUMBERS:	Total U. S.	91,190 acres
1st—Michigan	25,500 acres	
2nd—Virginia	5,600 acres	
PEAS:	Total U. S.	264,470 acres
1st—Wisconsin	78,300 acres	
2nd—Washington	27,260 acres	
TOMATOES:	Total U. S.	400,250 acres
1st—Indiana	70,200 acres	
2nd—Maryland	62,800 acres	

APPLICATION OF WALSH-HEALEY ACT

IN connection with recent Veterans Bureau bid on new pack peas, it is important to note that a canner who delivers directly to government agency (even though bid was obtained by jobber) is subject to certain labor standards provision if the total contract exceeds $10,000. This means that if jobber's bid exceeds $10,000 the canner is subect to the Act even though the part he delivers is less than $10,000. The Act provides for an 8 hour day and 40 hour week for labor going into the goods after the opening of the bid.

Wisconsin Canners Assn.

CROP REPORTS

(Continued from Page 14)

OTHER ITEMS

HEALING SPRINGS, ARK., July 6, 1938—Beans: Crop is good. A large acreage out but not worth much in value; selling from 1 cent to 1½ cents per quart. Need rain. Do not can any.

HAINES CITY, FLA., July 11, 1938—Grapefruit: Section pack concluded with approximately 3,000,000 cases. Juice almost concluded with approximately 3,300,000. Market fairly stable at 92½ cents to 95 cents for sections and 62½ to 65 cents for juice. Next pack starts in November. Indications are for satisfactory cleanup.

ORRTANNA, PA., July 9, 1938—Red Sour Pitted Cherries: Pack completed; 10 per cent of last year. Apples: 60 per cent crop. Dry weather limiting growth.

ONALASKA, WIS., July 7, 1938—Cabbage: Acreage about 70 per cent. Prospects good.

•

SUMMARY OF CONDITIONS AND PROGRESS OF CANNING CROPS ON JULY 1, 1938

Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

THE following statements on the important truck crops for commercial manufacture were compiled from canners' reports to the Bureau of Agricultural Economics. These comments are intended to bring together the significant information contained in the reports issued on the various important truck crops for manufacture on July 13. The statements on soil and weather conditions, advancement in growth and progress of harvest refer to the two week period immediately preceding July 1.

GENERAL COMMENTS — Weather conditions have been favorable for the progress of canning crops except in some areas where rainfall has been excessive. Farmers have had an opportunity to attend to the cultivation of sweet corn, tomatoes and other row crops. Local heavy showers, generally confined to the upper Mississippi and Lake areas, inflicted some damage by washing fields. Maryland and Delaware have also suffered from the same cause. But final plantings of late crops, including lima beans and beets for canning were generally completed late in June or early July. Harvesting of early canning crops is making seasonal progress.

The end of the pea packing season is in prospect around July 15 in most of the important States. Canners are now turning their attention to the packing of snap beans. Harvesting of snap beans in Delaware and Maryland was in full swing by July 1. Pennsylvania canners had started by July 1 and the Ozark pack was expected to be completed by early July.

GREEN PEAS—Average condition of the canning pea crop on July 1 was slightly higher than was indicated by the mid-June reports from canners. The 1938 production is expected to total 264,470 tons for canning and freezing compared with the 1937 record-high production of 268,110 tons.

With packing operations nearing completion, July 1 indications point to a yield somewhat above everage for the United States. Weather conditions during the first two weeks of July, when harvesting of the late sweet varieties will be general will determine the final outcome of the 1938 pack.

SNAP BEANS—Above-average conditions of the snap bean crop indicate a record high production for 1938. A total of 123,900 tons was in prospect on July 1, compared with 105,300 tons estimated for 1937.

Yields in the Gulf States and the Ozark region, where harvesting was about finished by July 1, were above those obtained in 1937. Condition of the crop in the Tri-State—Pennsylvania area improved during the last two weeks of June and when harvesting got under way, prospects were for average yields. The Mexican bean beetle was the most serious threat, and control measures were being relied upon to combat this insect.

In the New England States, New York, Michigan, Wisconsin and other northern areas, the season's plantings were completed before July 1 and good germination was generally reported. Dry weather in Oregon and Washington slightly curtailed prospects in the Northwest.

SWEET CORN—The estimate of acreage planted to sweet corn for commercial manufacture in 1938 totals 335,360 acres. This season's plantings are about in line with the average of 334,090 acres for the 7-year (1930-36) period but they are 27 per cent less than the record-high plantings in 1937 of 454,350 acres.

A period of hot weather the latter part of June was conducive to rapid advancement of the sweet corn crop in the important Middlewestern States. Some of the early plantings were receiving the last cultivation.

TOMATOES—A total planting of 400,250 acres of tomatoes for manufacture is indicated for 1938. This is a reduction of 15 per cent from the 472,900 acres planted in 1937 but exceeds the 7-year (1930-36) average plantings of 386,980 acres by 3 per cent.

The indicated condition of the crop on July 1, was better than average. Prospects appear especially good in the Ozarks. In this region the crop is farther advanced than usual and some canners expect to start operations about July 20-25th.

On the Eastern Shore, the excessive rains late in June were detrimental to prospects. A heavy drop of the early blossoms reduced the set of the first fruit and has delayed harvest. Canning will not get under way generally before August 1.

In New York and Pennsylvania, the crop is growing under favorable conditions. From Ohio westward to Iowa, some losses have occurred because of heavy rains. In Colorado and Utah the crop is better than usual.

•

INDIANA TOMATO QUEEN SELECTED

ELIMINATION contests for the selection of the Queen to reign for the Annual Indiana Tomato Festival to be held at Elwood, Indiana, July 27th, were completed July 12th, the honor going to Peggy Walsh of Washington, Indiana, who will be given a trip to Washington, D. C., on Friday, July 22nd.

•

PREPARING A TABLE IN THE WILDERNESS

(Continued from page 12)

excercise of a moral obligation rests upon each to understand that he is his brother's keeper?

A most provocative situation exists. What sane buyer will initiate business with an almost definite knowledge that the price will be lower than he is paying before he can possibly receive his shipment? Would you? What rational buyer will consider purchasing unless he can satisfy himself that he is to be at least competitive? Would you? "No", you say. But what of the correction to this thoroughly unintelligent program?

The resistance of buyers to prices which strangle the very life-blood from canners could very easily be halted if, as a fraternity, those who represent canners in any sales capacity would divest themselves of any effort to further muddy the waters and rather pledge themselves to giving assurance to a slightly higher price until, at least, the cost of production plus a small profit to the canner has been established—and then have guts enough to stand on that platform. The flood gates would soon open and orders would flow through amazingly.

There is not a buyer in the country who is not only ready but willing and anxious to re-supply his skeleton inventory. He lacks only courage—the courage which you and I, as sales representatives, can supply.

This would be indeed "preparing a table in the wilderness".

CANNED FOOD PRICES

All Prices quoted F. O. B. Factory

Prices given represent the high and low canners' selling price of the current week, subject to the customary cash discounts. Quotations per dozen unless otherwise noted. "Eastern" quotations for Atlantic Coast States east of Ohio River; "Central": Central States West of Ohio River to Mountain States; "West Coast": Mountain and Pacific Coast States.

Quotations on this page are for spot goods. For future quotations see market reports.

Canned Vegetables

	Eastern Low	Eastern High	Central Low	Central High	West Coast Low	West Coast High
ASPARAGUS						
White Colossal, No. 2½	.....	.....	.....	.....	2.45	2.55
Large, No. 2½	.....	.....	.....	.....	2.50	2.60
Medium, No. 2½	.....	.....	.....	.....	2.50	2.60
Green Mam., No. 2 ro. cans	.....	.....	2.50	2.60	2.55	2.70
Medium, No. 1 tall	.....	.....	.....	.....	.....	.....
Large, No. 2	.....	.....	2.40	2.50	2.50	2.60
Tips, White, Mam. No. 1 sq	.....	.....	.....	.....	2.35	2.45
Small, No. 1 sq	.....	.....	.....	.....	2.15	2.25
Green Mam., No. 1 sq	.....	.....	.....	.....	2.20	2.25
Small, No. 1 sq	.....	.....	.....	.....	2.00	2.40
Green Tips, 60/80, 2s	1.95	2.10	2.10	2.15	.....	.....
Green Tips, 40/50, 2s	2.15	2.50	2.30	2.35	.....	.....
Green Cuts and Tips, 2s	.....	.....	1.65	1.75	.....	.....
Green Cuts and Tips, 10s	.....	.....	.....	.....	.....	.....
Green Cuts, 2s	1.05	1.15	.....	.....	.....	.....
STRINGLESS BEANS						
Fancy French Cut Green, No. 2	.95	1.00	.....	.....	1.20	1.25
No. 10	4.50	5.00	.....	.....	5.00	.....
Ex. Std. Cut Green, No. 2	.60	.70	.70	.80	.90	.....
No. 10	3.15	3.50	3.75	4.00	.....	.....
Std. Cut Green, No. 2	.55	.70	.57½	.75	.80	.85
No. 10	2.50	3.35	3.35	.....	.....	.....
Fancy Whole Green, No. 2	1.00	1.25	1.35	1.75	1.40	.....
No. 10	4.50	5.00	.....	.....	.....	.....
Ex. Std. Whole Green, No. 2	.80	.....	.....	.....	.....	.....
No. 10	4.00	4.75	.....	.....	.....	.....
Fancy Cut Wax, No. 2	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Ex. Std. Cut Wax, No. 2	.....	1.00	.85	.90	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Std. Cut Wax, No. 2	.62½	.....	.75	.80	.....	.....
No. 10	3.25	.....	.....	.....	.....	.....
Fancy Whole Wax, No. 2	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Ex. Std. Whole Wax, No. 2	.....	.....	1.10	1.15	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Std. Whole Wax, No. 2	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Red Kidney, Std., No. 2	.60	.65	.62½	.65	.....	.....
No. 10	3.00	3.25	3.00	3.25	.....	.....
LIMA BEANS						
No. 2 Tiny Green	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
No. 2 Fancy Small Green	.....	.....	.....	.....	.....	.....
No. 2 Medium Green	.....	.....	1.25	1.30	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
No. 2 Green & White	.....	.....	.92½	1.00	1.00	1.10
No. 10	.....	.....	.....	.....	.....	.....
No. 2 Fresh White	.....	.....	.75	.80	.90	.95
No. 10	.....	.....	.....	.....	.....	.....
No. 2 Soaked	.57½	.....	.60	.65	.....	.....
BEETS						
Whole, No. 2	.75	.....	.00	1.20	.....	.....
No. 2½	.95	.....	.95	1.50	.....	.....
No. 10	3.25	.....	3.75	4.50	.....	.....
Std. Cut, No. 2	.70	.....	.65	.70	.....	.....
No. 2½	.90	.....	.....	.....	.....	.....
No. 10	3.25	.....	.....	.....	.....	.....
Ex. Std. Cut, No. 2	.....	.....	.65	.65	.....	.....
No. 2½	.....	.....	.70	.75	.....	.....
No. 10	.....	.....	2.75	3.00	.....	.....
Std. Sliced, No. 2	.80	.....	.....	.....	.85	.90
No. 2½	.....	.....	.....	.....	1.10	.....
No. 10	3.75	.....	.....	.....	3.35	.....
Ex. Std. Sliced, No. 2	.....	.....	.....	.....	.95	.....
No. 10	.....	.....	.....	.....	3.60	.....
CARROTS						
Std. Sliced, No. 2	.75	.....	.....	.....	.....	.....
No. 10	3.50	4.25	.....	.....	.....	.....
Std. Diced, No. 2	.65	.75	.60	.70	.65	.70
No. 10	3.00	3.25	2.75	3.00	.....	.....
PEAS AND CARROTS						
Std. No. 2	.80	.....	.....	1.10	.....	1.30
Fancy No. 2	.90	1.10	1.15	1.25	.....	.....

CANNED VEGETABLES—Continued

	Eastern Low	Eastern High	Central Low	Central High	West Coast Low	West Coast High
CORN—Wholegrain						
Yellow, Fancy No. 2	.80	.85	.85	.95	.....	.....
No. 10	5.25	.....	5.00	5.75	.....	.....
Ex. Std. No. 2	.77½	.80	.80	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Std. No. 2	.75	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
White, Ex. Std. No. 2	.70	.80	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Std. No. 2	.62½	.75	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Shoepeg, Fancy No. 2	.80	.85	.....	.....	.....	.....
No. 10	5.50	.....	.....	.....	.....	.....
Ex. Std. No. 2	.72½	.80	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Std. No. 2	.67½	.75	.....	.....	.....	.....
CORN—Creamstyle						
Yellow, Fancy No. 2	.80	.85	.80	.95	1.15	1.15
No. 10	.....	.....	4.50	5.00	.....	.....
Ex. Std. No. 2	.75	.80	.77½	.80	.....	.....
No. 10	.....	4.00	4.25	5.00	.....	.....
Std. No. 2	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	3.75	.....	.....	.....
White, Fancy No. 2	.75	.80	.80	.95	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Ex. Std. No. 2	.62½	.....	.65	.70	.....	.....
No. 10	3.75	4.00	3.75	4.50	.....	.....
Std. No. 2	.57½	.60	.62½	.65	.....	.....
No. 10	3.60	3.75	3.75	4.00	.....	.....
HOMINY						
Std. Split, No. 1, Tall	.....	.....	.....	.....	.....	.....
No. 2½	.70	.85	.60	.65	1.10	.....
No. 10	.....	2.50	1.90	2.35	.....	.....
MIXED VEGETABLES						
Fcy., No. 2	.80	.85	.....	.....	.....	.....
No. 10	4.00	4.50	.....	.....	.....	.....
Std., No. 2	.55	.....	.....	.....	.....	.....
No. 10	3.00	.....	.....	.....	.....	.....
PEAS						
No. 2 Fancy Sweets, 2s	1.40	.....	1.25	1.50	1.20	1.40
No. 2 Fancy Sweets, 3s	1.25	.....	1.10	1.35	1.15	1.30
No. 2 Fancy Sweets, 4s	1.20	.....	1.00	1.25	1.10	1.20
No. 2 Fancy Sweets, 5s	1.10	.....	1.00	1.15	1.00	1.10
No. 2 Ex. Std. Sweets, 2s	.....	.....	1.00	1.25	1.15	1.20
No. 2 Ex. Std. Sweets, 3s	.....	.....	.95	1.10	1.10	1.15
No. 2 Ex. Std. Sweets, 4s	.....	.....	.90	1.10	1.05	1.10
No. 2 Ex. Std. Sweets, 5s	.95	.....	.85	1.00	1.00	1.05
No. 2 Std. Sweets, 2s	.....	.....	.90	1.10	.....	.....
No. 2 Std. Sweets, 3s	.....	.....	.85	1.00	1.10	1.15
No. 2 Std. Sweets, 4s	.....	.....	.85	1.00	1.00	1.10
No. 2 Std. Sweets, 5s	.90	.....	.75	.90	.90	.95
No. 10 Std. Sweets, 2s	.....	.....	5.50	5.75	.....	.....
No. 10 Std. Sweets, 3s	.....	.....	5.00	5.25	4.75	5.00
No. 10 Std. Sweets, 4s	.....	.....	4.00	4.75	4.50	4.75
No. 10 Std. Sweets, 5s	4.25	.....	4.00	4.75	4.25	4.50
No. 2 Fcy. Alaska, 1s	.....	.....	1.40	1.60	1.40	1.50
No. 2 Fcy. Alaska, 2s	1.25	.....	1.30	1.50	1.30	1.45
No. 2 Fcy. Alaskas, 3s	.....	.....	1.10	1.30	1.20	1.30
No. 2 Ex. Std. Alaskas, 1s	1.05	.....	1.15	1.25	1.25	1.30
No. 2 Ex. Std. Alaskas, 2s	1.00	.....	1.00	1.10	1.20	1.30
No. 2 Ex. Std. Alaskas, 3s	.85	1.00	.90	1.05	1.10	1.20
No. 2 Ex. Std. Alaskas, 4s	.75	.80	.85	.90	.95	1.10
No. 2 Ex. Std. Alaskas, 5s	.....	.....	.....	.....	1.00	1.05
No. 10 Ex. Std. Alaskas, 1s	.....	.....	.....	.....	.....	.....
No. 10 Ex. Std. Alaskas, 2s	5.00	5.25	5.25	5.50	.....	.....
No. 10 Ex. Std. Alaskas, 3s	4.75	5.00	4.75	5.50	.....	.....
No. 2 Std. Alaskas, 2s	.85	.90	.....	.....	.....	.....
No. 2 Std. Alaskas, 3s	.72½	.80	.80	.85	.90	1.00
No. 2 Std. Alaskas, 4s	.70	.75	.72½	.75	.85	.90
No. 2 Std. Alaskas, 5s	.....	.....	.67½	.75	.80	.90
No. 10 Std. Alaskas, 1s	5.00	.....	.....	.....	.....	.....
No. 10 Std. Alaskas, 2s	4.25	4.50	.....	.....	.....	.....
No. 10 Std. Alaskas, 3s	3.75	4.00	4.00	4.50	4.50	4.75
No. 10 Std. Alaskas, 4s	3.50	3.75	3.75	4.00	4.25	4.50
No. 10 Std. Alaskas, 5s	.....	.....	.....	.....	4.00	4.50
No. 2 Ungraded	.67½	.70	.....	.....	.90	.95
Soaked, 2s	.42½	.50	.55	.60	.57½	.60
10s	2.15	2.75	.....	.....	3.50	.....
Blackeye, 2s, Soaked	.57½	.70	.....	.....	.....	.....
10s	2.70	3.50	.....	.....	.....	.....
PUMPKIN						
Fancy, No. 2	.....	.....	.60	.70	.60	.70
No. 2½	.75	.....	.70	.75	.80	.85
No. 3	.....	.....	.....	.....	.....	.....
No. 10	2.50	.....	2.50	.....	2.40	2.50
SAUER KRAUT						
Fancy, No. 2	.62½	.77½	.65	.72½	.....	.80
No. 2½	.80	.95	.80	.80	.....	.96
No. 3	.....	.....	.....	.....	.....	.....
No. 10	2.80	3.00	2.65	2.85	.....	3.15
SPINACH						
No. 2	.62½	.72½	.65	.65	.95	1.10
No. 2½	.82½	.95	.80	.90	1.15	1.35
No. 10	2.75	3.25	2.65	3.00	3.50	4.35
SUCCOTASH						
Std. No. 2, Gr. Corn, Dr. Limas	.80	.....	.....	.....	.....	.....
Std. No. 2, Gr. Corn, Fr. Limas	1.05	—	—	—	.....	.....
Triple, No. 2	.....	—	.....	.....	.....	—

	Eastern Low	Eastern High	Central Low	Central High	West Coast Low	West Coast High
SWEET POTATOES						
Std., No. 2 Dry Pack	.70	.70	.....	.....	.....	.....
No. 2½	.80	.87½	.....	.....	.....	.....
No. 3	.....	.....	.....	.....	.....	.....
No. 10	2.70	3.00	.....	.....	.....	.....
Std., No. 2, Syrup Pack	.75	.....	.....	.....	1.20	1.20
No. 2½	.97½	1.00	.....	.....	1.50	1.50
No. 3	.....	.....	.....	.....	.....	.....
No. 10	3.25	3.50	.....	.....	.....	.....
TOMATOES					Solid Pack	
Fancy, No. 2	.....	.....	1.05	1.05	.95	1.02½
No. 2½	.....	.....	1.35	1.35	1.32½	1.37½
No. 3	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	4.15	4.25
Ex. Std., No. 1	.....	.....	.....	.....	.....	.....
No. 2	.67½	.75	.70	.80	.....	.....
No. 2½	1.00	1.25	.90	.95	.....	.....
No. 3	.....	.....	.....	.....	.....	.....
No. 10	.....	3.50	.....	.....	2.75	2.85
					With puree	
Std., No. 1	.40	.50	.....	.....	.60	.62½
No. 2	.62½	.67½	.65	.....	.70	.72½
No. 2½	.90	1.00	.85	.90	.80	.87½
No. 3	.....	1.15	.....	.....	.....	.....
No. 10	3.25	3.25	3.00	3.25	2.75	2.85
TOMATO PUREE						
Std., No. 1, Who. St. 1.04	.42½	.....	.....	.40	.....	.....
No. 10	3.25	.....	2.50	3.50	3.25	3.40
Std., No. 1, Trim 1.035	.40	.....	.....	.....	.....	.....
No. 10	3.05	3.25	2.25	2.50	2.75	2.85
TOMATO JUICE						
No. 1	.40	.45	.45	.50	.55	.57½
No. 2	.65	.70	.70	.75	.72½	.75
No. 10	2.50	3.00	3.00	3.25	2.75	3.00
TURNIP GREENS						
No. 2	.75	.....	.65	.67½	.....	.....
No. 2½	1.05	.....	.85	.90	.....	.....
No. 10	3.50	.....	2.90	3.00	.....	.....

Canned Fruits

APPLES						
No. 10, water	.....	.....	.....	.....	.....	.....
No. 10, standard heavy pack	2.50	2.90	.....	.....	.....	.....
No. 10, fancy heavy pack	2.75	3.15	.....	.....	3.00	3.50
APPLE SAUCE						
No. 2 Fancy	.55	.70	.....	.....	.....	.....
No. 10	2.90	3.25	.....	.....	.....	.....
No. 2 Std.	.52½	.....	.....	.....	.....	.....
No. 10	2.75	.....	.....	.....	.....	.....
APRICOTS						
No. 2½, Fancy	.....	.....	.....	.....	1.50	1.75
No. 2½, Choice	.....	.....	.....	.....	1.20	1.40
No. 2½, Std.	.....	.....	.....	.....	1.15	1.20
GRAPEFRUIT	**Florida**		**Texas**		**California**	
8 oz.	.47½	.....	.....	.....	.....	.....
No. 2	.92½	1.00	.....	.....	1.00	1.05
No. 5	2.85	3.00	.....	.....	2.75	3.10
GRAPEFRUIT JUICE						
8 oz.	.44	.45	.37	.44½	.....	.....
No. 1	.54	.55	.48	.50	.....	.....
No. 300	.57½	.62½	.55	.60	.62½	.65
No. 2	.60	.70	.60	.65	.75	.80
No. 5	2.00	.....	1.90	2.12½	2.12½	2.32½
PEARS						
Keifer, Std., No. 2½	1.35	1.35	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Choice, No. 2½	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	.....	.....
Bartlett, Fancy, No. 2½	1.85	1.90	.....	.....	1.80	1.90
Choice, No. 2½	1.70	.....	.....	.....	1.60	1.75
Std., No. 2½	.....	.....	.....	.....	1.45	1.55
No. 10, Water	.....	.....	.....	.....	3.75	4.00
No. 10, Syrup	6.25	.....	.....	.....	5.75	6.00
No. 10 Pie, S. P.	.....	.....	.....	.....	3.15	3.35
PEACHES						
Fcy., Y. C., No. 2½	.....	.....	.....	.....	1.45	1.50
Choice, No. 2½	.....	.....	.....	.....	1.30	1.35
Std., No. 2½	.....	.....	.....	.....	1.25	.....
Ex. Std., Slic. Yel., No. 1 Talls	.....	.....	.....	.....	1.00	1.10
Seconds, Yel., No. 2½	.....	.....	.....	.....	.....	1.15
No. 10, Fancy	.....	.....	.....	.....	.....	5.15
Peeled, No. 10, Solid Pack	.....	.....	.....	.....	.....	4.25
PINEAPPLE						
Hawaiian, Slic., Fancy, No. 2	.....	.....	.....	.....	1.50	.....
No. 2½	.....	.....	.....	.....	1.80	.....
Std., No. 2	.....	.....	.....	.....	1.40	.....
No. 2½	.....	.....	.....	.....	1.65	.....
Sliced, Standard, No. 10	.....	.....	.....	.....	5.85	6.10
Shredded, Syrup, No. 10	.....	.....	.....	.....	.....	.....
Crushed, Ex. Std., No. 10	.....	.....	.....	.....	.....	.....
PINEAPPLE JUICE						
Buffet	.....	.....	.....	.....	.52½	.....
No. 211	.....	.....	.....	.....	.72½	.....
No. 2	.....	.....	.....	.....	1.05	.....
No. 2½	.....	.....	.....	.....	1.50	.....
46 oz.	.....	.....	.....	.....	2.40	.....
No. 10	.....	.....	.....	.....	5.00	.....

CANNED FRUITS—Continued

	Eastern Low	Eastern High	Central Low	Central High	West Coast Low	West Coast High
FRUITS FOR SALAD						
Fcy., No. 2½	.....	.....	.....	.....	2.25	2.35
No. 10	.....	.....	.....	.....	3.00	3.40
BLACKBERRIES						
Std., No. 2	.....	.....	.....	.....	1.20	1.50
No. 3	.....	.....	.....	.....	.....	.....
No. 10, water	.....	.....	.....	.....	4.25	.....
No. 2, Preserved	.....	.....	.....	.....	.....	.....
No. 2, Syrup	.....	.....	.....	.....	.....	.....
BLUEBERRIES						
No. 2	1.65	1.85	1.45	1.50	.....	.....
No. 10	6.25	7.00	5.50	6.00	.....	.....
CHERRIES						
Std., Red, Water, No. 2	.....	.....	.....	.....	.....	.....
Std., White, Syrup, No. 2	.....	.....	.....	.....	.....	.....
Ex. Std., Preserved, No. 2	.....	.....	.....	.....	.....	.....
Red Sour Pitted, No. 2	1.15	1.35	1.10	1.20	1.35	1.35
Red Sour Pitted, No. 10	5.50	.....	5.25	5.50	5.00	.....
R. A. Fcy., No. 2½	.....	.....	.....	.....	2.00	2.15
Choice, No. 2½	.....	.....	.....	.....	1.90	2.00
Std., No. 2½	.....	.....	.....	.....	1.80	1.85
GOOSEBERRIES						
Std., No. 2	.....	.....	.....	.....	.....	.....
No. 10	.....	.....	.....	.....	4.75	.....
RASPBERRIES						
Black, Water, No. 2	.....	.....	1.45	1.50	.....	2.10
No. 10	7.25	7.50	5.00	.....	.....	5.75
Red, Water, No. 2	.....	.....	.....	.....	.....	2.10
No. 10	7.25	7.50	5.00	.....	5.25	5.75
Black, Syrup, No. 2	1.75	.....	1.40	1.60	.....	2.65
Red, Syrup, No. 2	.....	.....	.....	.....	.....	2.65
STRAWBERRIES						
Ex. Pres., No. 1	.....	.....	.....	.....	2.10	.....
No. 2	.....	.....	.....	.....	2.50	.....
Pres., No. 1	.....	.....	.....	.....	.....	.....
No. 2	.....	.....	.....	.....	.....	.....
Std., Water, No. 10	.....	.....	.....	.....	6.25	7.00

Canned Fish

HERRING ROE						
10 oz.	.70	.....	.....	.....	.....	.....
No. 2, 19 oz.	1.25	.....	.....	.....	.....	.....
No. 2, 17 oz.	.....	.....	.....	.....	.....	.....
LOBSTER						
Flats, 1 lb.	6.50	6.50	.....	.....	.....	.....
½ lb.	3.25	3.25	3.00	.....	.....	.....
¼ lb.	1.95	1.95	.....	.....	.....	.....
OYSTERS			**Southern**		**Northwest Selects**	
Std., 4 oz.	.95	1.05	.95	.....	.....	.....
5 oz.	1.00	1.10	1.00	.....	1.15	1.25
8 oz.	1.90	2.10	.....	.....	1.50	1.75
10 oz.	2.00	2.20	1.90	.....	.....	.....
Selects, 6 oz.	.....	.....	.....	.....	.....	.....
SALMON						
Red Alaskas, Tall, No. 1	.....	.....	.....	.....	2.05	2.15
Flat, No. ½	.....	.....	.....	.....	1.50	1.70
Cohoes, Tall, No. 1	.....	.....	.....	.....	.....	1.60
Flat, No. 1	.....	.....	.....	.....	.....	.....
No. ½	.....	.....	.....	.....	.....	.....
Pink, Tall, No. 1	.....	.....	.....	.....	1.00	1.00
Flat, No. ½	.....	.....	.....	.....	.80	.....
Sockeye Flat, No. 1	.....	.....	.....	.....	.....	.....
No. ½	.....	.....	.....	.....	.....	1.50
Chums, Tall, No. 1	.....	.....	.....	.....	.95	.....
Medium, Red, Tall	.....	.....	.....	.....	1.50	1.60
SHRIMP						
			Southern			
No. 1, Small	.....	.....	1.30	1.30	.....	.....
No. 1, Medium	.....	.....	1.35	1.35	.....	.....
No. 1, Large	.....	.....	1.40	1.45	.....	.....
SARDINES (Domestic) Per Case						
¼ Oil, Key	3.50	.....	.....	.....	.....	.....
¼ Oil, Keyless	2.80	2.80	.....	.....	.....	.....
¼ Oil, Tomato, Carton	.....	.....	.....	.....	.....	.....
¼ Oil, Carton	3.60	3.60	.....	.....	.....	.....
¼ Mustard, Keyless	2.70	2.70	.....	.....	.....	.....
Calif. Oval No. 1, 24's	.....	.....	.....	.....	1.70	1.70
Calif. Oval No. 1, 48's	.....	.....	.....	.....	3.35	3.40
TUNA FISH, Per Case						
Fcy., Yel., 1s, 24's	.....	.....	.....	.....	.....	.....
Fcy., Yel., 1s, 48's	.....	.....	.....	.....	10.50	11.45
½s	.....	.....	.....	.....	5.75	6.30
½s	.....	.....	.....	.....	3.85	4.15
Light Meat, 1s	.....	.....	.....	.....	9.50	10.65
½s	.....	.....	.....	.....	5.25	5.75
¼s	.....	.....	.....	.....	3.65	3.95

WANTED and FOR SALE

This is a page that must be read each week to be appreciated. You are unlikely to be interested every week in what is offered here, but it is possible you will be a dozen times in the year. If you fail to see and accept, your opportunity and money are lost. Rates upon application.

FOR SALE — MACHINERY

CONSOLIDATED OFFERS: 1 Solid nickel, jacketed, agitated Vacuum Pan, 100 gal. MISCELLANEOUS: Copper and aluminum Cooking Kettles; Retorts; Can and Bottle Labelers; Glass Lined Tanks; Pumps; Vacuum Pans, etc. A-1 condition. Quick delivery. We buy and sell from a single item to a complete plant. Consolidated Products Co., Inc., 18-20 Park Row, New York City.

FOR SALE—Sewage or Disposal Plants and equipment for chlorinating polluted water. Write us in regard to the only nationally accepted sewage screen for waste disposal; also regarding equipment for chlorinating waste cannery water. We can help you conform with state laws at little expense. A. K. Robins & Co., Inc., Baltimore, Md. Manufacturers of canning machinery.

FOR SALE—One 6 pocket M & S Filler, adjustable No. 1 to No. 3; One Peerless Pulp Filler, adjustable No. 1 to No. 10; One Langsenkamp Pulper; One Kern Brush Finisher. All in good shape, some used but one season. Address Box A-2317 c/o The Canning Trade.

FOR SALE—Scales. Motor Truck, Warehouse, Dump, Tank and Hopper. New and used. Bargains. All capacities. Guaranteed accuracy and durability. Shipped on 30-day free trial. Bonded Scale Co., Dept. CT., Columbus, Ohio.

FOR SALE—One 70 Station Sprague Peeling Table; two Wescott Peeling Tables for tomatoes; one Robins Scalder; one Ayars five-pocket Shaker Filler; two 80 HP Boilers; one 125 HP Boiler. William T. Howeth, Lewes, Del.

FOR SALE—Limited number of used and reconditioned small retorts for home canning, experimental or laboratory work. St-25 Burpee $6.00. 40 qt. National $15.00 No. 2 Hotel size Dixie $22.00. Capacity 81 No. 1; 52 No. 2; 33 No. 3; approximate shipping weight 122 lbs. No. 3 factory size Dixie retorts $32.00, capacity 225 No. 1; 175 No. 2; 106 No. 3. All equipment completely reconditioned f. o. b. St Louis, Missouri. Midwest Federated Cooperatives, 220 S. Boyle St., St. Louis, Mo.

FOR SALE—Sprague No. 7 Cream-style Corn Silker, cheap. 1 Sprague Universal Corn Cutter, 1936 model, belt drive, whole-grain cutting heads only, complete with tools and parts. Address Box A-2318 c/o The Canning Trade.

FOR SALE—Six 300 gallon practically new Copper Steam Jacketed Kettles. Two 5-pocket Ayars Tomato Fillers, one with brining attachments, in A-1 condition, used but two seasons. Reconditioned 2½" Kook-More Koils, Tanks and Traps. One Indiana Pulper. One Kern Brush Finisher. Address Box A-2316 c/o The Canning Trade.

FOR SALE—18 Coons Double Apple Peelers; 1 Myers Deep Well Pump, 24" stroke, 4¾x40" cylinder; 2 Cameron Horizontal Boiler Pumps, cylinder 5x4x7"; 1 Beach Russ No. 9 Compound High Vacuum Pump; 1 Kiefer Visco Filling Machine for Butters, Jams and Jellies; 1 Van Atta Hydraulic Cider Press Pump for 18" press; 1 Anderson-Barngrover 500 No. 10 Cooker and 500 No. 10 Cooler; 1 100 H.P. Ames Steam Engine; 1 Stainless Steel Heater for making juice without condensation. Above equipment in good condition and at attractive prices for quick sale. The C. H. Musselman Co., Biglerville, Pa.

WANTED — MACHINERY

WANTED—To buy ten (10) good new style Sprague Retorts, size 40 x 72. Address Box A-2319 c/o The Canning Trade.

WANTED—To buy one Sprague-Sells or Hansen Hand Pack Filler, Dished Bowl preferred, for No. 2 and 2½ cans. Address Box A-2320 c/o The Canning Trade.

FOR SALE — SEED

FOR SALE—Seed. 35 bushels Asgrow Green Pod Stringless Bean Seed; 100 bushels Henderson Bush Lima Bean Seed. Grown by Associated Seed Growers, Inc. The Torsch Canning Co., Baltimore, Md.

SITUATIONS WANTED

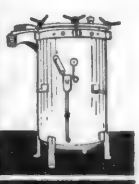
WANTED—Position as Superintendent or Food Chemist. Nine years technical experience in canning plant and laboratory work as food chemist and supervisor. Employed at present but desire change to a smaller city. Address Box B-2282 c/o The Canning Trade.

POSITION WANTED—As Superintendent or Manager by experienced man. Prefer plant canning a dry pack. Good references. Location not essential. Address Box B-2301 c/o The Canning Trade.

POSITION WANTED—Plant Superintendent offers services for 1938 season, 18 years' experience in the canning industry. Qualified packer of whole tomatoes and their allied products, cold packing and the preserving of berries, also the barreling of cucumbers and peppers. Immediate attention given to inquiries. Address Box B-2304 c/o The Canning Trade.

POSITION WANTED—By pickling expert, authority on pickling methods, hot or cold processing, any and all styles of pickles, relishes, sauces, brine stock, mayonnaise. Outstanding experience from seed to finished product. Age 37, married. Excellent references. Can take full charge. Address Box B-2309 c/o The Canning Trade.

AGICIDE
SAFE INSECTICIDES
for
Controlling Crop Pests
AGICIDE LABORATORIES
Los Angeles Milwaukee, Wis

BERLIN CHAPMAN
BERLIN • WISCONSIN U.S.A.
CANNING MACHINERY

A COMPLETE LINE OF CANNING MACHINERY FOR ANY PLANT

HAMILTON
Steam Jacketed
KETTLES

—all styles, any size—made in Copper, Aluminum, Stainless Steel, Monel Metal, Pure Nickel.

Nationally known for their quality of materials, construction and performance. Built by an organization that has made kettles for more than 66 years.

HAMILTON COPPER & BRASS WORKS, Hamilton, Ohio

All the latest data

FORMULAE — COOKING TIMES
COOKING TEMPERATURES
are included in the 6th edition of

"A Complete Course in Canning"

Price $10.00
order your copy now.

The Canning Trade
20 S. Gay Street
Baltimore, Md.

ARTISTIC
LABELS

PLAIN.
VARNISHED.
EMBOSSED.

THE
SIMPSON & DOELLER
CO.
BALTIMORE.MD.

SMILE AWHILE

There is a saving grace in a sense of humor

Contributions Welcome

ABIE'S IRISH

Little Mr. Einstein, a traveling salesman, on Thanksgiving Day found himself far away from home, and naturally very lonesome. He knew not a soul in the hotel at which he was staying, and he decided that he must attract some attention at any cost.

Presently a bell-hop came through the lobby paging a Mr. Murphy. "Mr. Murphy! Mr. Murphy!" he shouted. At this point Mr. Einstein jumped up and hollered: "Say, boy, vat initials?"

\- - -

He: How far can you swim?
She: Barely one hundred yards.
He: And how far with a bathing suit on?

\- - -

PUZZLE

A man somewhat under the influence of good-fellowship attempted to pass through the revolving door of a restaurant. Each time he entered, he made the complete round and found himself in the street again. After several unsuccessful attempts he sat down on the pavement to work things out.

A moment later a young man walked rapidly up the street and went in. The door went around and a young woman came out. The inebriate was puzzled.

"What gets me," he remarked, "is what the devil he did with *his* clothes."

\- - -

"Some of the things said over the wires," declared a telephone operator to a lineman making repairs, "are not fit for me to hear."

"Aw," replied the lineman, "you can't expect to work around electricity and not get shocked."

\- - -

WHAT, NO MICKEY MOUSE?

Yes Man: Boss, I think we could make some money by filming "The Taming of the Shrew."

Producer: Naw. The overhead is too high on them animal pictures.

\- - -

"I saw the doctor enter your house. I hope it was nothing serious."

"It was very serious! He called to collect his bill."

\- - -

SAME THING

"Well, pop has another wife to support now!"

"What, what—he's not a bigamist, is he—do tell?"

"Nope, but I just got married."

\- - -

Captain: All hands on deck. The ship is leaking!

Voice from below: Aw, put a pan under it and go to bed.

WHERE TO BUY

—— the Machinery and Supplies you need, and the Leading Houses that supply them. Consult the advertisements for details.

ADHESIVES.
Dewey & Almy Chemical Co., Cambridge, Mass.

ADJUSTERS for Detachable Chains.
Frank Hamachek Mach. Co., Kewaunee, Wis.

AGITATORS
Hamilton Copper & Brass Works, Hamilton, Ohio.

BASKETS, Picking.
Planters Mfg. Co., Portsmouth, Va.
Riverside Manufacturing Co., Murfreesboro, N. C.
Baskets, Wire, Scalding, Pickling, etc. See Cannery Supplies.

BEAN SNIPPER, Green String.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

BEET MACHINERY.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N Y.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.
Scott Viner Co., Columbus, Ohio.

BELTS, Carrier, Rubber, Wire, Etc.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
La Porte Mat and Mfg. Co., La Porte, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

BELT LACING
Flexible Steel Lacing Co., Chicago, Ill.

BLANCHERS, Vegetable and Fruit.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

BOILERS AND ENGINES, Steam.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

BOOKS, on Canning, Formula, Etc.
A Complete Course in Canning.
How to Buy and Sell Canned Foods.
A History of the Canning Industry.
The Almanac of the Canning Industry.
All published by The Canning Trade, Baltimore.

BOX (Corrugated) SEALING MACHINES.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

BOXES, Lug, Field, Metal.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Frank Hamachek Mach. Co., Kewaunee, Wis.

BOXING MACHINES.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.
Westminster Mach. Wks., Westminster, Md.

BROKERS.
Phillips Sales Co., Cambridge, Md.

BURNERS, Oil, Gas, Gasoline, Etc.
A. K. Robins & Co., Inc., Baltimore, Md.

CAN MAKERS' MACHINERY.
Cameron Can Mchy. Co., Chicago, Ill.

CANNED FOODS.
Phillips Packing Co., Cambridge, Md.
Phillips Sales Co., Cambridge, Md.

CANS, Tin, All Kinds.
American Can Co., New York City.
Continental Can Co., New York City.
Crown Can Co., Philadelphia, Pa.
Heekin Can Co., Cincinnati, Ohio.
National Can Co., Inc., New York-Baltimore.
Phelps Can Co., Baltimore, Md.
Phillips Can Co., Cambridge, Md.

CAN SEALING COMPOUND.
Dewey & Almy Chemical Co., Cambridge, Mass.

CAN TESTING MACHINERY.
Cameron Can Machinery Co., Chicago, Ill.

CAN WASHING MACHINES.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.

CANNERY SUPPLIES.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.

CAPPING MACHINES, Soldering.
Ayars Machine Co., Salem, N. J.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
Capping Steels, Soldering. See Cannery Sup.

CARRIERS AND CONVEYORS, Spiral.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.
Catsup Machinery. For the preparatory work: see Pulp Mchy.

CHAIN ADJUSTERS.
F. Hamachek Machine Co., Kewaunee, Wis.

CLEANING AND GRADING MACHY., Fruits.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.

CLOCKS, Process Time.
Ayars Machine Co., Salem, N. J.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

CLOSING MACHINES, Open Top Cans.
Cameron Can Mchy. Co., Chicago, Ill.

CONVEYORS AND CARRIERS, Canners.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
La Porte Mat & Mfg. Co., La Porte, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.
Scott Viner Co., Columbus, Ohio.

CONVEYOR BELT FASTENERS
Flexible Steel Lacing Co., Chicago, Ill.

COOKERS, Continuous, Agitating.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio.
A. K. Robins & Co., Inc., Baltimore, Md.

COOLERS, Continuous.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

COPPER COILS, for tanks.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.
Copper Jacketed Kettles. See Kettles, Copper.

CORN COOKER-FILLERS.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.

CORN CUTTERS.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
Morral Bros., Morral, Ohio.
A. K. Robins & Co., Inc., Baltimore, Md.
The United Co., Westminster, Md.

CORN HUSKERS AND SILKERS.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Morral Bros., Morral, Ohio.
A. K. Robins & Co., Inc., Baltimore, Md.
The United Co., Westminster, Md.

CORN SHAKERS.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

CORN TRIMMERS
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Mach. Corp., Hoopeston, Ill.
Sinclair Scott Co., Baltimore, Md.
United Co., Westminster, Md.

CRANES AND CARRYING MACHINES.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
A. K. Robins & Co., Inc., Baltimore, Md.

CRATES, Iron Process.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

CUTTERS, Vegetable, Mincemeat, Etc.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

DECORATED TIN (or Cans, Caps, Etc.).
American Can Co., New York City.
Continental Can Co., New York City.
Crown Can Co., Philadelphia, Pa.
National Can Co., New York-Baltimore.

DUSTS & SPRAYS (insect control).
Agicide Laboratories, Milwaukee, Wis.

ENAMELED BUCKETS, PAILS, Etc.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

ENSILAGE DISTRIBUTORS.
Frank Hamachek Mach. Co., Kewaunee, Wis.

EVAPORATING MACHINERY.
Berlin-Chapman Co., Berlin, Wis.

EXHAUST BOXES.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
A. K. Robins & Co., Inc., Baltimore, Md.

FACTORY TRUCKS.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

FIBRE CONTAINERS for Food (not hermetically sealed).
American Can Co., New York City.
Continental Can Co., New York City.

FILLING MACHINES, Can.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
E. J. Judge, Alameda, Cal.
A. K. Robins & Co., Inc., Baltimore, Md.

FINISHING MACHINES, Catsup, Etc.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

GENERAL AGENTS for Machinery Mfrs.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

GLASS LINED TANKS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

HYDRAULIC CONVEYING EQUIPMENT.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Scott Viner Co., Columbus, Ohio.

WHERE TO BUY — Continued

INSECTICIDES.
Agicide Laboratories, Milwaukee, Wis.

INSURANCE, Canners.
Canners' Exchange, Lansing B. Warner, Chicago.

Jacketed Kettles. See Kettles, Copper.

JACKETED PANS, Steam.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

KETTLES, Copper, Plain or Jacketed.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

Kettles, Enameled. See Glass-Lined Tanks.

KETTLES, Process.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

KNIVES, Miscellaneous.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.

KRAUT CUTTERS.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

KRAUT MACHINERY.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.

LABELING MACHINES.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
Morral Bros., Morral, Ohio.
A. K. Robins & Co., Inc., Baltimore, Md.
Westminster Mach. Co., Westminster, Md.

LABEL MANUFACTURERS.
Gamse Litho. Co., Baltimore, Md.
R. J. Kittredge & Co., Chicago., Ill.
Piedmont Label Co., Bedford, Va.
Simpson & Doeller Co., Baltimore, Md.

LABORATORIES, for Analyses of Goods, Etc.
National Canners Assn., Washington, D. C.

LACING, BELT
Flexible Steel Lacing Co., Chicago, Ill.

MILK CONDENSING AND CANNING MCHY.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.

MIXERS
Chisholm-Ryder Co., Niagara Falls, N. Y.
Hamilton Copper & Brass Works, Hamilton, Ohio.
F. H. Langsenkamp Co., Indianapolis, Ind.

OYSTER CANNERS' MACHINERY.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.

PASTE, CANNERS'.
Dewey & Almy Chemical Co., Cambridge, Mass.
F. H. Langsenkamp & Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

PAILS, Rubber.
Dewey & Almy Chemical Co., Cambridge, Mass.

PEA HULLERS AND VINERS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. Hamachek Mach. Co., Kewaunee, Wis.
Scott Viner Co., Columbus, Ohio.
Sinclair-Scott Co., Baltimore, Md.

PEA AND BEAN SEED.
Associated Seed Growers, Inc., New Haven, Conn.
Gallatin Valley Seed Co., Bozeman, Mont.
D. Landreth Seed Co., Bristol, Pa.
Rogers Bros. Seed Co., Chicago, Ill.
F. H. Woodruff & Sons, Milford, Conn.

PEA CANNERS' MACHINERY.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. Hamachek Mach. Co., Kewaunee, Wis.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.
Scott Viner Co., Columbus, Ohio.
Sinclair-Scott Co., Baltimore, Md.

PEA VINER FEEDERS
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. Hamachek Mach. Co., Kewaunee, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.
Scott Viner Co., Columbus, Ohio.

PEELING KNIVES.
Ayars Machine Co., Salem, N. J.
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

PEELING TABLES, Continuous.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

PINEAPPLE MACHINERY.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.

PRESERVERS' MACHINERY.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

PULP MACHINERY.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

PUMPS, Air, Water, Brine, Syrup.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Hansen Canning Machinery Corp., Cedarburg, Wis.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

SEALING MACHINES, Box.
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

SCALDERS, Tomato, Etc.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

SEEDS, Canners', All Varieties.
Associated Seed Growers, Inc., New Haven, Conn.
Gallatin Valley Seed Co., Bozeman, Mont.
D. Landreth Seed Co., Bristol, Pa.
Rogers Bros. Seed Co., Chicago, Ill.
F. H. Woodruff & Sons, Milford, Conn.

SEWAGE DISPOSAL.
Berlin Chapman Co., Berlin, Wis.
Chisholm Ryder Co., Niagara Falls, N. Y.
Food Mach. Corp., Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

SHEET METAL WORKING MACHINERY.
Cameron Can Mchy. Co., Chicago, Ill.

SIEVES AND SCREENS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.
The United Co., Westminster, Md.

SILKING MACHINES.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
The United Co., Westminster, Md.

SPEED REGULATING DEVICES (for Machines. Belt Drives, Etc.).
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
E. J. Judge, Alameda, Cal.
A. K. Robins & Co., Inc., Baltimore, Md.

SPRAYS & DUSTS (insect control).
Agicide Laboratories, Milwaukee, Wis.

STENCILS, Marking Pots and Brushes, Brass Checks, Rubber and Steel Type, Burning Brands, Etc.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

STIRRERS FOR KETTLES.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.

STRING BEAN MACHINERY.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

SYRUPING MACHINES.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
E. J. Judge, Alameda, Calif.
A. K. Robins & Co., Inc., Baltimore, Md.

TANKS, Metal.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

TANKS, Glass Lined, Steel.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.

TANKS, Wooden.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

TOMATO CANNING MACHINERY.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

TOMATO JUICE MACHINERY.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hansen Canning Machinery Corp., Cedarburg, Wis
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

TOMATO PEELING MACHINE.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

TOMATO SEED.
Associated Seed Growers, Inc., New Haven, Conn.
D. Landreth Seed Co., Bristol, Pa.
F. H. Woodruff & Sons, Milford, Conn.

TOMATO WASHERS.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

VACUUM PANS
Hamilton Copper & Brass Works, Hamilton, Ohio.
F. H. Langsenkamp Co., Indianapolis, Ind.

VEGETABLE CUTTERS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

VINERS AND HULLERS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Frank Hamachek Mach. Co., Kewaunee, Wis.
Scott Viner Co., Columbus, Ohio.
Sinclair-Scott Co., Baltimore, Md.

WASHERS, Can and Jar.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Hansen Cang. Mchy. Corp., Cedarburg, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.

WASHERS, Fruit, Vegetable.
Ayars Machine Co., Salem, N. J.
Berlin-Chapman Co., Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill
A. K. Robins & Co., Inc., Baltimore, Md.
Scott-Viner Co., Columbus, Ohio.
Sinclair-Scott Co., Baltimore, Md.
The United Co., Westminster, Md.

AYARS New Perfection

PEA & BEAN FILLER

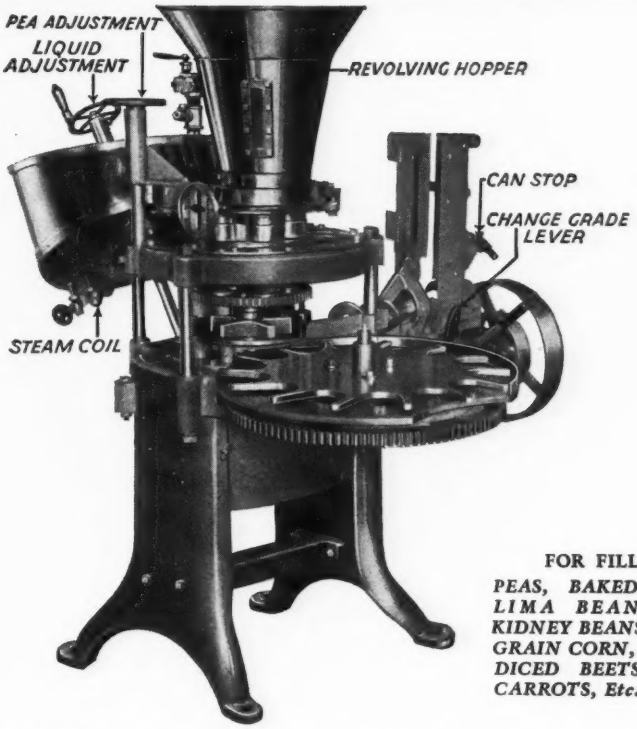
Only Filler on market with slowly revolving Hopper.

Hopper revolves slowly in opposite direction from the way filling pockets revolve assuring absolute uniform fill.

No-Can-No-Fill attachment that works perfectly.

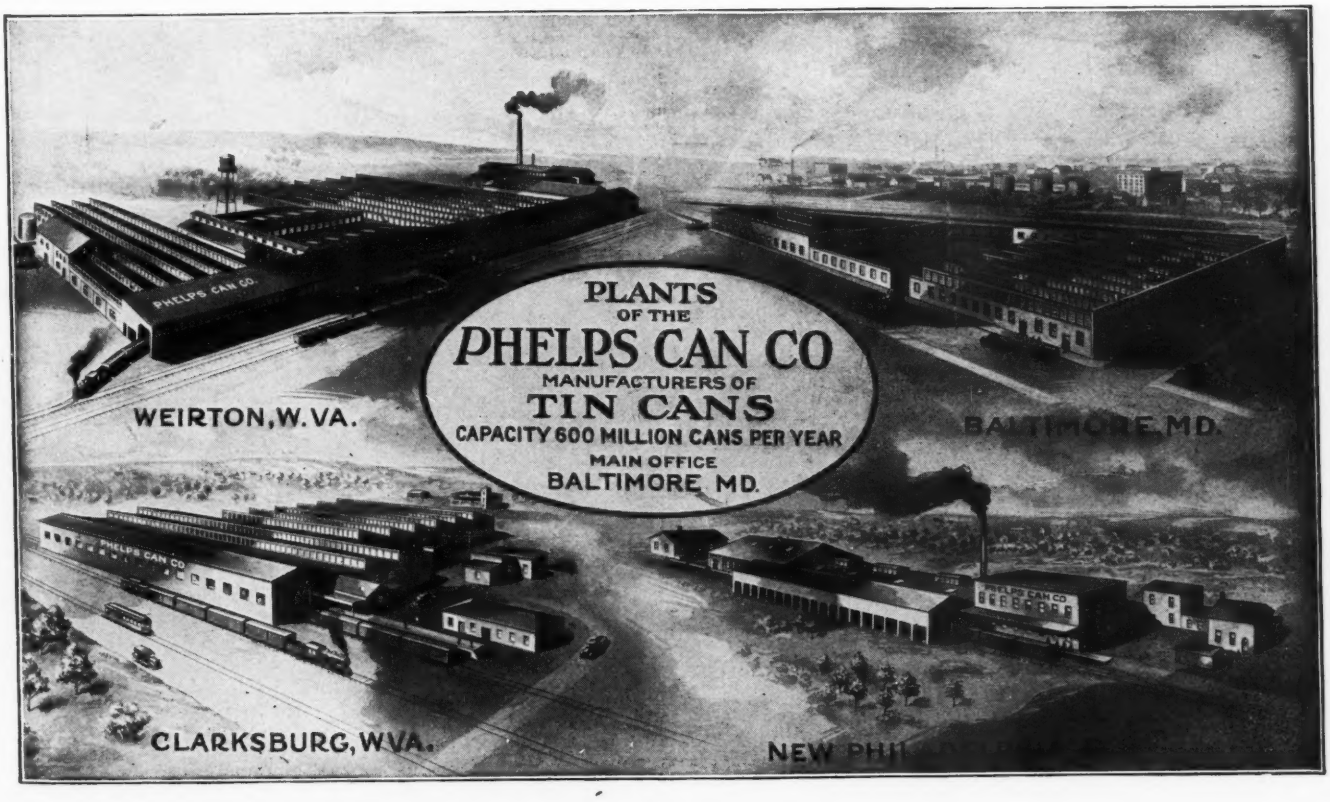
Fills all grades, even small sticky peas without any variation in the fill.

Large Brine Tank Assures hot brine at all times.



FOR FILLING
PEAS, BAKED BEANS, LIMA BEANS, RED KIDNEY BEANS, WHOLE GRAIN CORN, HOMINY, DICED BEETS, DICED CARROTS, Etc.

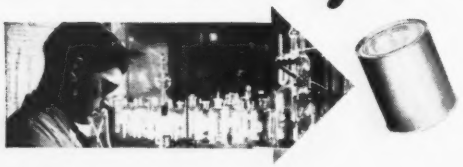
AYARS MACHINE COMPANY, Salem, New Jersey

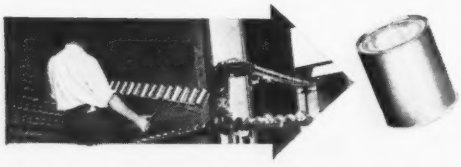


These facts stand

REPEATING!

CANS! *plus* SERVICE!





For the Twenty-ninth Season "NATIONAL" answers the Call of the Pack! ★ "NATIONAL" SERVICE has broadened and quickened with the march of time. ★ "NATIONAL" CANS arrive with a precision born of organized facilities. ★ Men, methods and the mechanics of Cannery operation are HERE to meet oncoming crops.

OVER and OVER *Experience Says* **Pack "NATIONAL!"**

NATIONAL CAN CORPORATION

SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK CITY

Sales Offices and Plants • NEW YORK CITY • BALTIMORE • MASPETH, N.Y. • CHICAGO • BOSTON • DETROIT • HAMILTON, ONT.